SDHES HEALTH RISK APPRAISAL (HRA)
Adult Version

Introduction: The Health Risk Appraisal is a health promotion tool in which an individual's health related behaviors and personal traits are compared to mortality statistics and epidemiological data. The process estimates the personal risk of dying by some specified future along with the proportion of that risk which could be eliminated by making appropriate behavioral changes. An interpretation of risk and change are presented to the individual in order to stimulate participation n a more healthy style of living, ultimately improving health.

Description: This Department has been offering the Health Risk Appraisal in Montana via the Health Education-Risk Reduction Project, as a free service to qualified health professionals. The software evolved from the EvaluVie Program developed by Health and Welfare, Canada, in 1972 and by a program written by the Public Health Service Center for Disease Control in 1973. The analysis includes averaged U.S. mortality data from 1975, 1976, and 1977. It has risk multipliers derived primarily from Robbins and Hall's "How to Practice Prospective Medicine, 1970", using a 37 item questionnaire. A two page printout is produced for each participant, plus a group printout on request.

Guidelines: To facilitate the cooperative development of the HRA and to minimize potential problems associated with its use, users are asked to maintain proficiency in the appropriate use of the analysis; protect the privacy of participating individuals; provide adequate interpretation; provide convenient opportunities for lifestyle improvement programs; and share prevalence data.

Value: The HRA seems to have these benefits . . .

(1) Helps to understand the meaning of "risk-taking", in relation to their behavior patterns, and brings home the fact that how we live often determines how we die.

(2) Demonstrates through the concepts of risk age and achievable age, the effects of risk taking, and shows that individual risks not only add to, but compound one another.

(3) Personalizes lifestyle hazards and helps the individual to realize "it can happen to me."

(4) Indicates the relative importance of lifestyle risks so the individual can choose which risks they wish to do something about and where to start.

(5) Conveys a sense of urgency, which can help to motivate an individual to make changes.

(6) Provides a prospect and a measure of reduced risk if certain bad habits are altered.

Experience: The HRA has been implemented in SDHES since 1981. 5,137 appraisals have been processed by physicians, nurses, educators, counselors in every county of the state. An accumulative percentage of selected risk factors are listed below of those completing the HRA thus far.

MONTANA 1981-1984** GROUP PROFILE OF HRA USERS

Ages:	Number:	(M)	(F)
	Under 35	763	1,490
	35-54	937	1,255
	55 and Over	255	437

	RISK FACTOR	MALE	FEMALE
1.	Cigarette Smoking (current)	25% (482)	26% (835)
2.	Overweight (20% or more above)	22% (419)	43% (687)
3.	High Blood Pressure (Above 90 mm diastolic)	17% (273)	8% (221)
4.	Chronic Heavy Drinking (10 or more drinks per week average)	24% (470)	9% (280)
5.	Self Reported Health (Excellent)	32% (628)	25% (816)

Eligibility: Individuals or organizations in Montana who wish to participate in research and development of the health risk appraisal concept should contact Robert W. Moon, SDHES, Cogswell Building, Helena, Montana 59620, 444-4488, or contact the local health department.

AGENDA: TUBERCULOSIS CONTROL: ONE SEGMENT OF COMMUNICABLE DISEASE CONTROL -- FREE WORKSHOP/No Fee

9:00 - 10:00 Principles of Communicable Disease Control
10:00 - 10:15 BREAK
10:15 - 11:05 Modern T.B. Care and Control; Chemotherapy
11:05 - 12:00 Pathogenesis of T.B.; it guides your follow-up of the case and contacts
12:00 - 1:00 LUNCH
1:00 - 1:50 How Do You Know If It's T.B. or Not T.B.?
1:50 - 2:10 BREAK
2:10 - 3:00 What are the Major Public Health Goals in TB Control?
3:00 - 4:00 How do you prevent new cases?: Contact follow-up

Return this form to the T.B. Control Office, Nursing Bureau, DHES, Cogswell Building, Helena, Montana 59620.

We hope to see many of you during March and April!

PRE-REGISTRATION -- To receive your reading materials before the workshop, PRE-REGISTER!

Name_____

Work Address_____

Position_____ Work Phone #_____

____ Billings 3-30-84 ____ Miles City 3-29-84
____ Butte 5-2-84 ____ Polson 3-22-84
____ Conrad 4-12-84 ____ Wolf Point 3-27-84
____ Havre 4-11-84 *CHECK ONE YOU WILL ATTEND*

x x x

JANUARY 1984		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels															
	Phillips															
	Roosevelt															14
	Sheridan															
	Valley										2					2
DISTRICT 2	Dawson															2
	Garfield															
	McCone															
	Prairie										1					
	Richland															
	Wibaux															3
DISTRICT 3	Carter										1					
	Custer															
	Fallon										1					
	Powder River															
	Rosebud															2
	Treasure															
DIST. 4	Blaine			1												4
	Hill			1									1			9
	Liberty															
DISTRICT 5	Cascade												1			
	Chouteau															13
	Glacier															6
	Pondera															
	Teton															1
	Toole															
DISTRICT 6	Fergus															
	Golden Valley															
	Judith Basin															
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn								1					1		3
	Carbon															
	Stillwater															
	Sweet Grass															
	Yellowstone				1	1								1		10
DIST. 8	Broadwater															1
	Jefferson															1
	Lewis & Clark			1												6
DIST. 9	Gallatin															2
	Meagher															
	Park			1												1
DISTRICT 10	Flathead												1			4
	Lake				2										1	1
	Lincoln															
	Sanders															
DIST. 11	Mineral															
	Missoula			4	2	2							1			7
	Ravalli															1
DISTRICT 12	Beaverhead															
	Deer Lodge															
	Granite															
	Madison															
	Powell															
	Silver Bow									1						
MONTHLY TOTAL	1984	0	0	8	5	3	0	0	1	1	5	0	4	2	1	93
	1983	0	0	3	1	0	0	0	0	1	14	0	8	0	5	88
	1982	0	0	3	1	0	0	3	1	0	2	0	4	4	0	112
TOTAL TO DATE	1984	0	0	8	5	3	0	0	1	1	5	0	4	2	1	93
	1983	0	0	3	1	0	0	0	0	1	14	0	8	0	5	88
	1982	0	0	3	1	0	0	3	1	0	2	0	4	4	0	112

DELAYED REPORTS:

OTHER DISEASES: Campylobacter: Big Horn 1, Missoula 1.
Mononucleosis: Missoula 4, Phillips 1.
H. influenza pneumoniae: Liberty 1.
Late latent syphilis: Lincoln 1.

National Neonatal Herpes Simplex Virus Surveillance System
Information Sheet

The Centers for Disease Control (CDC) of the U.S. Public Health Service, Department of Health and Human Services, is initiating a national neonatal herpes simplex virus (HSV) surveillance system. We want to identify every case of neonatal HSV infection occurring in infants born after September 30, 1983. We ask that health professionals report all cases of suspected or confirmed HSV infection that occur in infants within 30 days of life.

Criteria for a Case of Neonatal HSV Infection
Any of the following:

1. A positive culture for HSV from the infant.
2. Positive cytologic evidence from the infant.
3. Clinical course consistent with HSV infection.
4. Ill infant and mother diagnosed as having HSV infection at delivery.

To Report A Case

1. Call the Project Manager, Louise Ritz, collect at (301) 589-6760.
2. We ask that a form provided by CDC be completed for each case. At the discretion of the hospital, the form may be completed by either hospital personnel or a person from the contractor representing CDC.

For Further Information:
Please write or call collect the CDC contractor:

Louise Ritz
Birch and Davis Associates, Inc.
8905 Fairview Road, Suite 300
Silver Spring, MD 20910
(301) 589-6760 (Collect)

ISONIAZID SYRUP ONCE AGAIN AVAILABLE

After being off the market for four years, Isoniazid Syrup USP 50mg/5ml is again available. Carolina Medical Products has it for immediate delivery at $7.79 per pint in cartons of six.

MDHES Tuberculosis Control will not be able to supply the syrup. Tablet form INH will continue to be available for preventive therapy and treatment of cases.

REPORTABLE DISEASES HANDBOOKS AND PLACARDS AVAILABLE THROUGH MDHES

Comprehensive handbooks and quick reference placards on those diseases which are to be reported in Montana are now available to all public and private health providers in Montana.

Please write to Communicable Diseases Control, Cogswell Building, Helena, MT, 59620 or call (406)444-4740 to obtain copies of these two excellent references for your office staff.

NEW DATA ON PREVENTIVE TREATMENT WITH INH *

Most tuberculosis disease seen in older adults results from reactivation of quiescent infections acquired at a much earlier age. Many such persons can be found to have fibrotic pulmonary lesions on chest X-rays prior to development of symptomatic disease, and persons with such lesions plus a positive tuberculin skin test are known to constitute a high risk group for reactivation disease. The results of a recently completed international study of 28,000 adults with stable fibrotic pulmonary lesions confirmed the effectiveness of prophylactic treatment with INH in preventing development of culture-positive tuberculosis.

Subjects were randomized to four groups: placebo, INH for 12 weeks, 24 weeks and 52 weeks. After follow-up for five years, subjects on the 12-week course showed only a slight reduction (21%) in tuberculosis incidence compared to the placebo group, but those receiving 24 weeks and 52 weeks of INH showed substantial reductions (65% and 75% respectively). Subjects receiving placebo were four times more likely to develop culture-positive tuberculosis during the follow-up than subjects who received 52 weeks of INH.

Excess hepatitis occurred at a rate of only 4 per 1000 subjects receiving INH, and after the first year of follow-up, the cases of culture-positive tuberculosis prevented outnumbered the hepatitis cases incurred. The only fatalities occurred among three subjects who continued to take INH after they developed hepatitis.

The benefits of prophylactic INH for this high risk group are clearly apparent in this study. It is both informative and encouraging to note that suhstantial risk reduction can be achieved with only 24 weeks of INH prophylaxis, thus indicating that individuals who do not complete a full year of INH nevertheless benefit. However, maximum risk reduction is achieved with 52 weeks of INH and this should still be the goal for prophylactic treatment.

References:
1. Bull WHO 1982;60:555. Efficacy of various durations of isoniazid preventive therapy for tuberculosis: five years of follow-up in the IUAT trial.
2. Ann Int Med 1983;98:663. New data on preventive treatment with isoniazid.
3. Tuberculosis Statistics, 1981. Centers for Disease Control, Tuberculosis Control Division.

* Reprinted from Kentucky Epidemiologic Notes & Reports, Vol. 18, No. 5.

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Volume: 8:2 Month of: February 1984

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S 312.8 M27 V.8 #2 Feb. 1984

February 1984		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels										1					
	Phillips															
	Roosevelt				1											15
	Sheridan															
	Valley										2					
DISTRICT 2	Dawson															
	Garfield															
	McCone										2					
	Prairie															
	Richland															
	Wibaux															
DISTRICT 3	Carter															
	Custer										1					
	Fallon															
	Powder River															
	Rosebud															6
	Treasure															
DIST. 4	Blaine															1
	Hill			1						1						1
	Liberty							1								
DISTRICT 5	Cascade				2	1										5
	Chouteau															
	Glacier			1											1	9
	Pondera					1										
	Teton															
	Toole															
DISTRICT 6	Fergus										1					1
	Golden Valley															
	Judith Basin															
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn															5
	Carbon															
	Stillwater															
	Sweet Grass															
	Yellowstone				1				1				2			13
DIST. 8	Broadwater															
	Jefferson															
	Lewis & Clark															10
DIST. 9	Gallatin															4
	Meagher															
	Park					1										
DISTRICT 10	Flathead	1														5
	Lake								1							2
	Lincoln															
	Sanders															
DIST. 11	Mineral															
	Missoula				2								2			3
	Ravalli															
DISTRICT 12	Beaverhead															
	Deer Lodge															
	Granite															
	Madison															
	Powell					1										
	Silver Bow															
MONTHLY TOTAL	19 84	1	0	2	6	4	0	1	2	1	7	0	4	0	1	81
	19 83	0	0	1	3	1	0	0	0	0	6	0	5	0	2	115
	19 82	0	0	5	3	0	0	0	0	0	5	0	2	9	9	104
TOTAL TO DATE	19 84	1	0	10	11	7	0	1	3	2	12	0	8	2	2	174
	19 83	0	0	4	4	1	0	0	0	1	20	0	13	0	5	203
	19 82	0	0	8	4	0	0	3	1	0	7	0	6	13	9	216

DELAYED REPORTS:

Bacterial meningitis: Hill 1, Liberty 1.
Typhoid fever: Hill 1 - Week 2, 1984.

OTHER DISEASES: Early latent syphilis: Gallatin 1
Influenza: regional outbreaks
Campylobacter: Ravalli 1.
Bacterial meningitis: Cascade 1.
Non-A, Non-B Hepatitis: Big Horn 1, Flathead 1*
* out-of-state importation
Mononucleosis: Cascade 1, Lake 2.
Adenovirus: Cascade 1, Hill 2, Yellowstone 1.

Twenty percent or more of women who are infected with wild rubella virus during the first trimester of pregnancy will have offspring with congenital rubella syndrome (CRS). This has led to genuine concern about the advisability of vaccinating women who may be carrying an early pregnancy or who may become pregnant within three months after immunization.

On August 26, 1983, the Centers for Disease Control published a summary of the latest information on this problem. Because of its importance, this summary is reproduced in its entirety.

Particular attention is called to the recommendation that rubella vaccination be given to all women of childbearing age whose immunity cannot be established and to the fact that inadvertant immunization during pregnancy does not necessarily indicate a need to terminate that pregnancy.

Current trends

From January 1971 to December 1982, 959 pregnant women who received rubella vaccine either within 3 months before or 3 months after their presumed dates of conception were reported to CDC. These women were followed prospectively to determine the risk of fetal abnormalities following exposure to the vaccine.

Cendehill and HPV-77 Vaccines: Before April 1979, data were collected on 538 women vaccinated during pregnancy with either Cendehill or HPV-77 rubella vaccines[1]. The outcomes of conception (live birth, stillbirth, and spontaneous or induced abortion) were known for 143 (96%) of the 149 women known to be susceptible at the time of vaccination. Ninety-four (66%) of these 143 women carried their pregnancies to term. All gave birth to infants free of defects compatible with congenital rubella syndrome (CRS)*[2], although eight infants had serologic evidence of intrauterine infection[1,3]. Follow-up from 2 to 7 years of these eight infants indicates no problems compatible with CRS. An additional 196 infants born to women who either were immune (22) or of unknown immune status (174) at the time of vaccination were also free of such defects. Three other women (one susceptible, one immune, and one of unknown immune status) received unknown strains of rubella vaccine. All three delivered normal appearing, healthy infants.

RA 27/3 Vaccine: Since licensure of the RA 27/3 rubella vaccine in 1979, 418 women who received it during pregnancy have been reported to CDC (Table 1). Outcomes of pregnancy are known for 390 (93%) women. Of the 111 women known to be susceptible at the time of vaccination, 81 (73%) carried their pregnancies to term. The dates of vaccination and estimated dates of confinement were known for all of the 81 susceptible women who had full-term pregnancies (Figure 1). Twenty-eight women (35%) were vaccinated within 1 week before to 4 weeks after conception and 57 (70%) within 6 weeks before or 6 weeks after conception. Two hundred sixty-two other women elected to carry their pregnancies to term. Three had twin births (two to susceptible women and one to a woman of unknown immune status). While none of the 346 newborns whose mothers had been vaccinated had defects compatible with CRS, 11 were born with one or more congenital defects. The mothers of two of these infants were known to be immune; and 7 were of unknown immune status.

The two infants born to susceptible women had asymptomatic glandular hypospadias. Both had negative rubella-specific immunoglobulin (IgM) titers (less than 1:4) in cord blood at birth. A 6-month follow-up serum was available for one of the infants who had a rubella hemagglutination inhibition (HI) antibody titer of less than 1:8.

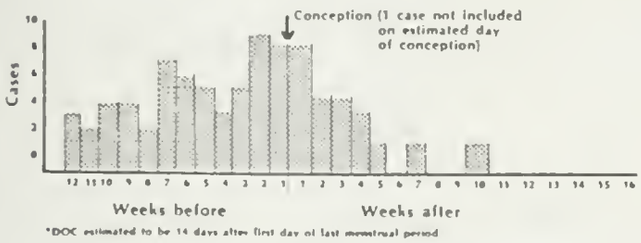
One of the two infants born to the immune women had multiple congenital anomalies; the other had a hydrocele that resolved spontaneously. Both had no detectable rubella-specific IgM antibodies at birth. Efforts to obtain follow-up sera have been unsuccessful.

Two of the seven infants born to the women whose immune status was unknown at the time of vaccination had heart murmurs that resolved spontaneously. A third infant had a spontaneously resolving hydrocele and hemangioma. Of the four remaining infants, one had asymptomatic glandular hypospadias; one had an omphalocele; one had hydrocephalus secondary to aqueductal stenosis and is being worked up for trisomy 21 mosaicism; and one had a small ventricular septal defect and an ectopic anus. Serologic data are currently available on four of these seven infants; none have any evidence of rubella infection.

Serologic evaluation (rubella HI titers and specific IgM on cord or neonatal blood specimens) was performed on 69 (83%) of the 83 infants whose mothers were susceptible. One normal-appearing infant had a rubella-specific IgM antibody titer of 1:8 in cord blood and a corresponding HI titer of 1:128. At 2 months of age, the HI titers had decreased to 1:16. The infant had no evidence of defects compatible with CRS at birth or at the 18-month follow-up examination. Blood studies were also obtained on 150 of the 241 infants born to mothers whose immune status was unknown at the time of vaccination. One such infant had a rubella-specific IgM antibody titer of 1:16 in cord blood. Both mother and infant had HI titers of 1:32 at the time of birth; the infant's HI titer was 1:32 at 4 months of age. This infant had no evidence of defects compatible with CRS at birth or at the 10-month follow-up examination. A serum specimen was not obtained at the 10-month visit.

To date, 11 women have had spontaneous abortions or stillbirths. Thirty-six others elected to have induced abortions (Table 1). Rubella virus has now been isolated from the products of conception in one (4%) of 28 cases involving susceptible women (15 cases reported to CDC and 13 from the literature)[4-6].

Figure 1. Rubella vaccination among susceptible recipients of RA 27/3 vaccine, by estimated date of conception (DOC)* — United States, through December 31, 1982



*DOC estimated to be 14 days after first day of last menstrual period

Table 1.

Pregnancy outcomes for 418 recipients of RA 27/3 vaccine — United States, through December 31, 1982

Prevaccination immunity status	Total women	Live births	Spontaneous abortions and stillbirths	Induced abortions	Outcome unknown
Susceptible	111	83*	3	19	8
Immune	24	22	1	0	1
Unknown	283	241†	7	17	18
Total	418	346	11	36	28

*Includes two twin births
†Includes one twin birth

Reported by Birth Defects Bureau, Chronic Diseases Division, Center for Environmental Health; Surveillance and Investigations Section, Surveillance, Investigations and Research Bureau, Division of Immunization, Center for Preventive Services, Centers for Disease Control.

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Editorial Note: Since 1971, CDC has maintained a register to monitor and quantitate the risks to the fetus following exposure to attenuated rubella vaccine virus. Data are obtained through reports from physicians and from state and local health departments, as well as directly from women vaccinated either within 3 months before or 3 months after conception. The patients are followed prospectively to determine the outcome of pregnancy. In 1979, when RA 27/3 rubella vaccine replaced the other rubella vaccines, concern was raised that it might have greater potential for teratogenicity than earlier vaccines. As with the other vaccines, data collected so far show no evidence that the RA 27/3 rubella vaccine can cause defects compatible with CRS. While hypospadias has been noted in CRS cases[7,8], there are no data to suggest that glandular hypospadias should be considered a CRS-associated defect.

Twenty-eight (35%) of the 81 susceptible mothers were vaccinated with the RA 27/3 vaccine during the highest risk period for viremia and fetal defects (1 week before to 4 weeks after conception)[9,10]. Neither those infants nor any others were born with CRS; therefore the observed risk of CRS following rubella vaccination continues to be zero. The theoretical maximum risk for the occurrence of CRS in this group of 83 children, however, based on the 95% confidence limits of the binomial distribution, may be as high as 5%. (If the 95 infants exposed to the other rubella vaccines are included, the maximum theoretical risk is 2%.) This overall maximum risk remains far less that the 20%or greater risk of CRS associated with maternal infection with wild rubella virus during the first trimester of pregnancy[3].

The occurrence of any congenital defect following maternal vaccination deserves careful analysis and follow-up. If only susceptibles are considered, the overall birth-defect rate is approximately 2% (2/83), which is less than the reported 4%-5% rate of birth defects in the absence of exposure to rubella vaccine recently noted by CDC[11,12]. Neither of the two infants with congenital deformities born to women known to be susceptible at the time of vaccination had any evidence of rubella infection. The absence of rubella-specific IgM antibodies at birth was confirmed by the absence of HI antibodies after 6 months of age in the one infant tested.

While no CRS-like defects have been noted, it is clear that rubella vaccine viruses, including the RA 27/3 strain, can cross the placenta and infect the fetus. Approximately 2% of infants born to susceptible vacinees had serologic evidence of subclinical infection, regardless of vaccine strain[3]. On the other hand, while the rubella virus isolation rate from the products of conception for the RA 27/3 vaccine is only 4% (1/28), the rate of Cendehill and HPV-77 vaccines is 20% (17/85)[3]. These data indicate that the risk of placental or fetal infection from RA 27/3 vaccine is minimal.

Following an earlier review of these data, the Immunization Practices Advisory Committee (ACIP) stated in 1981 that[13]:

(1) PREGNANCY REMAINS A CONTRAINDICATION TO RUBELLA VACCINATION BECAUSE OF THE THEORETICAL, ALBEIT SMALL, RISKS OF CRS;

(2) REASONABLE PRECAUTIONS BE TAKEN TO PRECLUDE VACCINATION OF PREGNANT WOMEN, INCLUDING ASKING WOMEN IF THEY ARE PREGNANT, EXCLUDING THOSE WHO SAY THEY ARE, AND EXPLAINING THE THEORETICAL RISKS TO THE OTHERS; and

(3) IF VACCINATION DOES OCCUR WITHIN 3 MONTHS OF CONCEPTION, THE RISK OF CRS IS SO SMALL AS TO BE NEGLIGIBLE; THUS, RUBELLA VACCINATION OF A PREGNANT WOMEN SHOULD NOT IN ITSELF INDICATE INTERRUPTION OF PREGNANCY.

THE PATIENT AND HER PHYSICIAN, HOWEVER, SHOULD MAKE THE FINAL DECISION.

Data collected through 1982 continue to support these recommendations.

Since the inception of its vaccine-in-pregnancy register, CDC has encouraged reporting of all such cases. Because of the increasing number of cases reported to CDC, the experience with known susceptibles is becoming well defined. Therefore, CDC now encourages reporting only cases involving women known to have been susceptible at the time of vaccination. Laboratory services for serologic determination and culture of placental and fetal tissue will continue to be available at CDC for susceptible cases that are reported.

REFERENCES:

1. CDC. Rubella vaccination during pregnancy -- United States, 1971-1981. MMWR 1982;31:477-81.
2. Bureau of State Services. Rubella surveillance, January 1976-December 1978. HHS Publication No.(CDC)80-8023. Atlanta, Georgia: Centers for Disease Control, 1980:27.
3. Preblud SR, Stetler HC, Frank JA Jr, Greaves WL, Hinman AR, Herrmann KL. Fetal risk associated with rubella vaccine. JAMA 1981;246:1413-7.
4. Banatvala JE, O'Shea S, Best JM, Nicholls MV, Cooper K. Transmission of RA 27/3 rubella vaccine strain to products of conception(letter). Lancet 1981;1:392.
5. Furukawa T, Miyata T, Kondo K, Kuno K, Isomura S, Takekoshi T. Clinical trials of RA 27/3 (Wistar) rubella vaccine in Japan. Am J Dis Child 1969;118:262-3.
6. Bernstein DI, Ogra PL. Fetomaternal aspects of immunization with RA 27/3 live attenuated rubella vaccine during pregnancy. J Pediatr 1980;97:467-70.
7. Desmond MM, Mongomery JR, Melnick JL, Cochran GG, Verniaud W. Congenital rubella encephalitis. Effects on growth and early development. Amer J Dis Child 1969;118:30-1.
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9. O'Shea S, Parsons G, Best JM, Banatvala JE, Balfour HH Jr. How well do low levels of ruhella antibody protect? (letter) Lancet 1981;2:1284.
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11. Center for Environmental Health. Congenital Malformations Surveillance Report. January-Oecember 1980. Atlanta, Georgia: Centers for Disease Control, 1982:24.
12. CDC. Unpublished data.
13. Immunization Practices Advisory Committee. Rubella prevention. MMWR 1981;30:37-42,47.

DELAYED REPORTS Brucellosis - Gallatin,1

CORRECTION: IN JANUARY WE REPORTED THAT THERE WERE 13 CASES OF GC IN CHOUTEAU CO. THOSE 13 CASES OF GC WERE REPORTED FROM CASCADE CO. IN JANUARY. CORRECTION.

OTHER DISEASES Bacterial meningitis - Yhsto,1 Campylobacter - Glacier,1;L.C.;Yhsto,1 Mononucleosis - Cascade,3;Gallatin,1;Lake,1; Ravalli,1;Yhsto,1. Adenovirus - Hill, 1. Candida albicans - Lincoln,1.

MARCH 1984	MONTHLY TOTAL 1984	TOTAL TO DATE 1984	TOTAL TO DATE 1983	TOTAL TO DATE 1982
ASEPTIC MENINGITIS	0	0	1	1
ENCEPHALITIS	0	0	0	0
GIARDIA	16	31	12	10
HEPATITIS A	2	13	8	11
HEPATITIS B	2	2	3	1
MEASLES	0	0	0	0
MENING DISEASE	0	1	1	1
MUMPS	1	1	4	2
PERTUSSIS	1	1	1	0
RABIES ANIMALS	3	3	12	10
RUBELLA	0	1	1	0
SALMONELLA	6	14	31	14
SHIGELLA	1	3	14	1
TUBERCULOSIS	7	15	10	10
GONORRHEA	104	250	115	331

DISTRICT 12: Powell 0; Sweet Grass 0; Stillwater 0; Carbon 0; Big Horn 1; Yellowstone 1; Treasure 0; Rosebud 0; Prairie 0; Wibaux 0; Richland 1; Dawson 0; Valley 0; Daniels 0

DIST 11: Musselshell 0; Rosebud 0; Custer 0; Fallon 0; Carter 0; Powder River 0; Big Horn 0; Yellowstone 0; Treasure 0; Rosebud 0; Prairie 0; Wibaux 0; Richland 0; Dawson 0; Valley 0; Daniels 0

DISTRICT 10: Missoula 2; Sanders 1; Lake 1; Flathead 1; Lincoln 0; Ravalli 0; Mineral 0; Missoula 2; Sanders 1; Lake 1; Flathead 1; Lincoln 0; Ravalli 0; Mineral 0

DIST 9: Park 1; Meagher 0; Gallatin 5; Park 1; Meagher 0; Gallatin 5

DIST 8: Jefferson 0; Broadwater 0; Jefferson 0; Broadwater 0

DISTRICT 7: Yellowstone 1; Sweet Grass 1; Stillwater 0; Carbon 1; Big Horn 1; Yellowstone 1; Sweet Grass 1; Stillwater 0; Carbon 1; Big Horn 1

DISTRICT 6: Hill 0; Blaine 1; Liberty 1; Hill 0; Blaine 1; Liberty 1

DISTRICT 5: Fergus 0; Judith Basin 0; Golden Valley 0; Musselshell 0; Petroleum 0; Wheatland 0; Meagher 0; Gallatin 5; Broadwater 0; Jefferson 0; Sweet Grass 1; Stillwater 0; Carbon 1; Big Horn 1; Yellowstone 1; Fergus 0; Judith Basin 0; Golden Valley 0; Musselshell 0; Petroleum 0; Wheatland 0

DISTRICT 4: Toole 0; Teton 0; Pondera 0; Glacier 3; Chouteau 0; Cascade 1; Toole 0; Teton 0; Pondera 0; Glacier 3; Chouteau 0; Cascade 1

DISTRICT 3: Liberty 1; Hill 1; Blaine 1; Liberty 1; Hill 1; Blaine 1

DISTRICT 2: Treasure 1; Rosebud 0; Prairie 0; Wibaux 0; Richland 1; Dawson 0; Valley 0; Daniels 0; Treasure 1; Rosebud 0; Prairie 0; Wibaux 0; Richland 1; Dawson 0; Valley 0; Daniels 0

DISTRICT 1: Roosevelt 0; Sheridan 0; Phillips 0; Roosevelt 0; Sheridan 0; Phillips 0

DISTRICT 13: Powder River 0; Custer 0; Fallon 0; Carter 0; Powder River 0; Custer 0; Fallon 0; Carter 0

Human diploid cell rabies vaccine (HDCV) has been licensed for use since June 9, 1980. Approximately 400,000 doses have been administered to an estimated 100,000 persons in the United States since that time. The majority of these were for postexposure treatments. Information on possible adverse reactions to HDCV has been collected by CDC from individual physicians and from medical personnel in charge of providing rabies preexposure and postexposure prophylaxis to large cohorts of persons, such as veterinary students and animal control workers. During the past 46 months, 108 clinical reports of systemic allergic reactions ranging from hives to anaphylaxis were reported to CDC (11 per 10,000 vaccinees). Few patients required hospitalization, and no deaths secondary to the reactions were reported.

The reports of systemic allergic reactions included nine cases of presumed Type I immediate hypersensitivity (1/10,000), 87 cases of presumed Type III hypersensitivity reactions (9/10,000), and 12 cases of allergic reactions of indeterminate type (Table 1). These reactions were classified on the basis of clinical observations only. Type I hypersensitivity reactions refer to immunoglobulin E (IgE)-mediated immediate reactions, such as anaphylaxis and atopy, whereas Type III hypersensitivity refers to immunoglobulin G (IgG)- or immunoglobulin M (IgM)-mediated immune complex disease characterized by antigen-antibody complex deposition in tissues, complement activation, and inflammation (1).

Hypersensitivity reactions presumed to be Type III occurred 2-21 days after a dose or doses of HDCV; patients presented with a generalized or pruritic rash or urticaria, sometimes accompanied by arthralgias, angioedema, fever, nausea, vomiting and malaise. All nine of the presumed immediate hypersensitivity reactions occurred during either primary preexposure immunization (vaccine administered on days 0,7, and 21 or 28) or postexposure immunization (vaccine on days 0,3,7,14, and 28 and rabies immune globulin on day 0). However, 81 (93%) of 87 of the presumed Type III hypersensitivity reactions were observed following booster immunization. Although the presumed Type III reactions occurred in six persons during primary immunization series, none were observed following the first dose of the primary series.

Routine boosters of HDCV at 2-year intervals have been recommended for persons with continuing risks of exposure. As increasing numbers of persons received their first routine 2-year boosters, reports of presumed Type III hypersensitivity reactions increased in frequency. In approximately half of known cohorts who received booster immunizations between January 1982 and March 1984, some recipients had presumed hypersensitivity reactions. Sixty-seven (7%) of 962 persons in these cohorts fit the above case description for presumed Type III hypersensitivity reactions.

Table 2 illustrates the clinical features in three of the cohorts reporting presumed Type III reactions following booster immunization with HDCV. When performed, urinalysis, blood urea nitrogen (BUN), and serum creatinine determinations have been normal. Elevated white blood cell counts ranging from 14,000 to 24,000 (predominantly polymorphonuclear leukocytes) were reported in two cases. Serum complement levels (C-3, C-4, and CH-50) were depressed in two patients when serum was drawn at the time of most active clinical symptoms; one of these also had detectable cryoglobulins. Serum complement levels were normal in five other patients whose sera were collected at other times. Respiratory distress was infrequently seen. Most patients' symptoms improved within 2-3 days when treated with antihistamines, but a few required systemic corticosteroids and epinephrine.

Preliminary analysis of epidemiologic features of the illness in several cohorts revealed a male/female relative risk of 2.3 (95% confidence limits, 1.2-4.4). No significant associations have been demonstrated between persons who reported presumed Type III hypersensitivity reactions and age, route of primary or booster immunization (intramuscular or intradermal), timing of booster after primary immunization, history of other allergies, or history of previous immunization with rabies vaccines other than HDCV. HDCV produced by both Merieux Institute and Wyeth Laboratories has been associated with reactions. In two groups for which serologic data were available, no difference was shown in pre-booster antibody titers between reactors and nonreactors, but post-booster titers were significantly higher in those who developed reactions. Most presumed Type III reactions were reported to have occurred following booster doses, but six occurred following two or more doses of HDCV given for primary immunization.

EDITORIAL NOTE: Primary immunization with HDCV appears to sensitize some recipients to an, as yet, unidentified component of the vaccine. When booster doses of HDCV are then administered, these persons develop a hypersensitivity reaction clinically consistent with Type III immune complex disease. Until this reaction problem can be resolved, it would be prudent to carefully assess each use of rabies vaccine for routine booster immunization. Persons who have experienced Type III hypersensitivity reactions should receive no further doses of HDCV unless: (1) they are exposed to rabies* or (2) they are truly likely to be inapparently and/or unavoidably exposed to rabies virus and have unsatisfactory antibody titers. The routine use of booster immunization in persons without histories of hypersensitivity reactions is clearly indicated only in those subjected to inapparent and/or unavoidable exposures to rabies virus. All available data suggest an anamnestic antibody response will occur in any person who previously received primary preexposure immunization with HDCV, even when the antibody titer at the time of the booster was low or undetectable.

Individuals with histories of presumed Type III hypersensitivity to HDCV may be at higher risk of subsequent hypersensitivity reactions, and vaccine should be administered under appropriate medical supervision.

References

1. Coombs RRA, Gell PGH. Classification of allergic reactions responsible for clinical hypersensitivity and disease. In: Gell PGH, Coombs RRA, Lachman P.J., eds. Clinical aspects of immunology. 3rd ed. Oxford: Blackwell Scientific Publications, 1975:761-81.

*Postexposure prophylaxis in previously immunized persons consists of two 1-ml intramuscular doses of HDCV, one each on days 0 and 3.

Table 1. Reports of systemic allergic reactions following immunization with human diploid cell rabies vaccine — United States, June 1980-March 1984

Reaction type*	Preexposure: Primary series ID†	Preexposure: Primary series IM§	Preexposure: Booster dose ID	Preexposure: Booster dose IM	Postexposure: Primary series IM	Postexposure: Booster dose IM	Total
Type I (immediate hypersensitivity)	1	0	0	0	8	0	9
Type III (immune complex disease)	1	0	42	34	5	5	87
Indeterminate (Type I or Type III)	0	0	0	0	11	1	12
Total	2	0	42	34	24	6	108

*Characterization of reactions is based on clinical definition, not immunopathologic changes.

Type I: Immediate hypersensitivity, as used here, refers to an immunologic illness occurring within minutes to hours after a dose of HDCV and characterized with either bronchospasm, laryngeal edema, generalized pruritic rash, urticaria, or angioedema.

Type III: Presumed immune complex disease, as used here, refers to an immunologic illness occurring 2-21 days after a dose or doses of HDCV and characterized by a generalized pruritic rash or urticaria; the patient may also have arthralgias, arthritis, angioedema, nausea, vomiting, fever, and malaise.

†Intradermal
§Intramuscular

Table 2. Signs and symptoms in three cohorts reporting presumed immune complex type hypersensitivity reactions* after booster immunization with human diploid cell rabies vaccine

	Cohort A	Cohort B	Cohort C
No. with reaction/total persons given boosters (%)	23/228 (10%)	22/123 (18%)	8/29 (21%)
Vaccine	Merieux	Wyeth	Merieux
Route of booster	ID†	IM§	IM
No. with sign or symptom (%)*			
Pruritic rash	18 (78%)	5 (18%)	1 (12.5)
Urticaria	20 (87%)	20 (91%)	8 (100%)
Edema	10 (43%)	10 (45%)	4 (50%)
Joint pain	4 (17%)	3 (14%)	0
Fever	1 (4%)	0	0
Difficulty breathing	1 (4%)	2 (9%)	0
Mean delay after booster before reaction (range)	9.4 days (3-21)	8.6 days (2-11)	10.5 days (8-11)

*Coombs and Gell Type III
†Intradermal
§Intramuscular
*Total in each cohort greater than 100% because multiple signs and symptoms could be reported in each person.

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Volume: 8:5 Month of: APRIL 1984

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	APRIL 1984	ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels															
	Phillips															
	Roosevelt															3
	Sheridan										1					
	Valley										2					
DISTRICT 2	Dawson										1					
	Garfield										2					
	McCone										3					
	Prairie															
	Richland										4					
	Wibaux															
DISTRICT 3	Carter										1					
	Custer															
	Fallon										3					
	Powder River										2					
	Rosebud															3
	Treasure															
DIST. 4	Blaine													1		1
	Hill	1		1										1		3
	Liberty															
DISTRICT 5	Cascade															14
	Chouteau															
	Glacier	1											1		1	7
	Pondera															1
	Teton															
	Toole										1					
DISTRICT 6	Fergus										2					
	Golden Valley															
	Judith Basin															1
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn															3
	Carbon															
	Stillwater															
	Sweet Grass															
	Yellowstone															16
DIST. 8	Broadwater															
	Jefferson															1
	Lewis & Clark			1									1		1	4
DIST. 9	Gallatin															
	Meagher															
	Park			2											1	
DISTRICT 10	Flathead												1			14
	Lake			2												5
	Lincoln															1
	Sanders															
DIST. 11	Mineral															1
	Missoula			2	6								3			7
	Ravalli				2											
DISTRICT 12	Beaverhead															4
	Deer Lodge															1
	Granite															
	Madison															
	Powell															1
	Silver Bow															
MONTHLY TOTAL	19 84	2	0	8	8	0	0	0	0	0	22	0	6	2	3	91
	19 83	April statistics will be reported in May for 1983 - combined April/May.														
	19 82	0	0	18	4	1	0	0	0	0	11	0	6	2	4	105
TOTAL TO DATE	19 84	3	0	26	21	9	0	1	4	3	37	0	20	5	10	349
	19 83															
	19 82	1	0	49	17	3	0	7	5	0	21	1	27	16	19	436

OTHER DISEASES: (cont.)
Boutonneuse fever - Lewis & Clark, 1.
Kawasaki disease - Glacier, 1; Silver Bow, 1.
Mycoplasma - Gallatin, 1; Missoula, 1; Pondera, 1.

DELAYED REPORTS:
Legionella - Gallatin, 3 (Jan/Feb)

OTHER DISEASES: Chancroid - Beaverhead, 1.
Bacterial meningitis - Ravalli, 1.
Brucellosis - Missoula, 1.
Campylobacter - Big Horn, 1; Valley, 1.
Hepatitis, Non A, Non B - Yellowstone, 1;
Unspecified - Cascade, 1.
Rocky Mtn. Spotted Fever - Lake, 1.

MAY 1984	ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1															
Dental															
Phillips															
Roosevelt															19
Sheridan										1					
Valley										1					
DISTRICT 2															
Daniels															
Garfield															
McCone										2					
Peace															
Richland										1					1
Wibaux															
DISTRICT 3															
Custer														1	
Fallon										2					1
Prairie															
Powder River										1					1
Richland										1		2			7
Treasure															
DIST 4															
Blaine															2
Hill		1*													2
Liberty															
DISTRICT 5															
Cascade	1		4									1			4
Chouteau															
Glacier															4
Pondera															
Teton															
Toole										1					
DISTRICT 6															
Fergus															
Golden Valley															
Judith Basin															
Meagher															
Musselshell															
Petroleum															
Wheatland															
DISTRICT 7															
Big Horn			1												
Carbon															
Stillwater															
Sweet Grass															
Yellowstone															20
DIST 8															
Broadwater															1
Jefferson															4
Lewis & Clark												1			1
DIST 9															
Gallatin	1		4												
Madison															
Park															8
DISTRICT 10															
Flathead															1
Lake	1														2
Lincoln															
Sanders															
DISTRICT 11															
Mineral														1	
Missoula			21						13*					12	
Ravalli															1
DISTRICT 12															
Beaverhead															
Deer Lodge															2
Granite															
Madison															
Powell															
Silver Bow			1												
MONTHLY TOTAL	5*	0	7	21	0	0	0	0	13*	11	0	3	0	2	92
TOTAL TO DATE 1984	8	0	29	42	2	0	1	4	16	48	0	23	5	12	441
TOTAL TO DATE 1983	1	0	22	10	4	0	7	2	1	49	0	36	1	20	458
TOTAL TO DATE 1982	1	0	55	19	3	0	7	5	0	34	2	50	19	25	531

DELAYED REPORTS
Aseptic meningitis: Hill, 1.*(also above)
Pertussis: Beaverhead, 13.*(also above)
(outbreak in February 1984)

OTHER DISEASES Campylobacter: Beaverhead, 1; Missoula, 1; Valley, 1; Yellowstone, 1.
Rocky Mtn Spotted Fever: Beaverhead, 1; Yellowstone, 1. Histoplasmosis: Yellowstone, 1.
Guillain-Barre syndrome: Gallatin, 1.
Primary Syphilis: Cascade, 1.
Early latent syphilis: Cascade, 1.

Plan Now for Influenza Vaccine Programs

Recommendations from the Immunization Practices Advisory Committee (ACIP) concerning prevention and control of Influenza for the 1984-1985 season have been extensively revised from the past ones. Highlights of the recommendations are as follows:

In influenza outbreaks a significant elevation of mortality often occurs. Such excess mortality is contributed not only to the direct cause of influenza pneumonia but also to an increase in deaths from cardiopulmonary disease. Epidemics have been associated with excess deaths of 10,000 persons or more 15 times from 1957 to 1982; excess mortality again exceeded the epidemic threshold during the 1982-1983 influenza season.

Because of the increasing proportion of elderly persons in the U.S. population and because age and its associated chronic diseases are risk factors for severe influenza illness, the future toll from influenza may increase, unless control measures are used more vigorously than in the past. Other populations at high risk for influenza-related complications are also increasing, due, for example, to the success of intensive-care units for neonates, better management of diseases, such as cystic fibrosis, and better survival rates for organ-transplant receipients. This statement discusses the presently available medical-control measures, immuno-prophylaxis with vaccines, and prophylaxis or therapy with the antiviral drug, amantadine.

Prophylaxis is likely to be achieved with greatest cost-effectiveness by vaccinating individuals for whom infection may have the most severe consequences and for whom there is a higher-than-average potential for infection. In addition, vaccination can be best organized when such high-risk individuals routinely have contact with the health-care delivery system for causes other than acute respiratory infection before the influenza season, thereby permitting vaccine administration without special visits to doctor's offices or clinics. Other indications for prophylaxis (whether with vaccine or antiviral drugs) include the strong desire of any person to avoid a preventable illness.

Use of inactivated influenza vaccine is the single most important measure in preventing and/or attenuating influenza infection. Potency of present vaccines is such that nearly all vaccinated young adults develop hemagglutination-inhibition antibody titers that are likely to protect them against infection by strains like those in the vaccine and, often, by related variants that emerge. The elderly, very young, and patients with certain chronic diseases may develop lower post-vaccination antibody titers than young adults. Under these circumstances, however, influenza vaccine may be more effective in preventing lower respiratory tract involvement or other complications of influenza than in preventing infection and involvement of the upper respiratory tract. Influenza vaccine will not, of course, prevent primary illnesses caused by other pathogens.

For an effective influenza control program, planning needs to take place far in advance of the flue season. Influenza vaccine can be purchased by public clinics via a term contract with Parke-Davis. Purchasing should be done now by writing or phoning Parke-Davis and Co., Box 3189, Anaheim, CA, 92803 or call 1-800-854-8155. Public clinics can order by stating they are a unit of the state of Montana and giving the number P-D TC# 898-85-J. Using the term contract, a 10-dose vial will cost $19.50 with a returnable option. Free syringes are available if requested at the time of ordering.

*The above are quotations from the May 18, 1984/Vol 33/No 19 Morbidity & Mortality Weekly Report which should be consulted in its entirety for complete recommendations.

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Recommendation of the Immunization Practices Advisory Committee (ACIP)

Supplementary Statement of Contraindications to Receipt of Pertussis Vaccine

The following statement updates some of the previous recommendations regarding pertussis vaccine (1). The Immunization Practices Advisory Committee (ACIP) reviewed the available data concerning the risks of pertussis disease and pertussis vaccine to infants and children with personal or family histories of convulsions. Based on available evidence, the ACIP does not consider a family history of convulsion to be a contraindication to receipt of pertussis vaccine. However, a personal history of a prior convulsion should be evaluated before initiating or continuing immunization with vaccines containing a pertussis component (i.e., diphtheria and tetanus toxoids with pertussis vaccine (DTP) (Table 1).

DEFERRAL OF DTP FOR INFANTS AND CHILDREN WITH PERSONAL HISTORIES OF CONVULSION(S)

Although there are uncertainties in the reported studies, recent data suggest that infants and young children who have previously had convulsions (whether febrile or nonfebrile) are more likely to have seizures following pertussis vaccination than those without such histories (2). Available data do not indicate that seizures temporally associated with vaccine administration predispose to permanent brain damage or exacerbate existing conditions. The incidence of pertussis in most areas of the United States is presently quite low. Consequently, for infants and young children who have histories of seizures before initiation of DTP immunization or who develop seizures before the four-dose primary series is completed, initiating or continuing pertussis immunization should be deferred until it can be determined that there is not an evolving neurologic disorder present. If such disorders are found, the infants or children should be given diphtheria and tetanus toxoids (DT) instead of DTP. If DT is used, three doses at least 4 weeks apart, followed by a fourth dose 6-12 months later, are recommended for infants. For children 1 year of age or older, two doses of DT at least 4 weeks apart, followed by a third dose 6-12 months later, are recommended.

RECOMMENDATIONS FOR BEGINNING OR CONTINUING DTP AFTER DEFERRAL

For infants and children whose DTP immunizations are deferred because of histories of convulsion(s), the decision whether to proceed with DTP immunization can usually be made within the next few months. For infants who have received fewer than three doses of DTP, such a decision in most instances should be made no later than at 1 year of age. Following individual assessment, it may be decided to proceed with DTP, because infants and young children with convulsive disorders also appear to be at a higher risk of adverse outcomes if they contract pertussis disease. Further, if unimmunized infants attend day-care centers, special clinics, and residential-care settings where other children may be unimmunized or if they travel to or reside in areas where the disease is endemic, they may be at increased risk of eposure to pertussis.

For infants and children with stable neurologic conditions, including well-controlled seizures, the benefits of pertussis immunization outweigh the risks, and such children may be vaccinated. The occurrence of single seizures temporally unassociated with DTP) in infants and young children, while necessitating evaluation, need not contraindicate DTP immunization, particularly if the seizures can be satisfactorily explained. An example might be a febrile seizure in the course of exanthem subitum in a 14-month-old child. As with all infants or children with one or more febrile seizures, consideration of continuous anticonvulsant prophylaxis may be warranted.

Parents should be fully informed of the benefits and risks of immunization with DTP. Parents of infants and children with histories of convulsions should particularly be made aware of the slightly increased chance of post-immunization seizures. A minimum of three doses of DTP given at intervals of at least 4 weeks is necessary to provide adequate protection against pertussis. A fourth dose 6-12 months later is also recommended.

CONTRAINDICATIONS TO PERTUSSIS VACCINE

Hypersensitivity to vaccine components, presence of an evolving neurologic disorder, or a history of a severe reaction (usually within 48 hours) following a previous dose all remain definitive contraindications to the receipt of pertussis vaccine. Severe reactions include collapse or shock, persistant screaming episode, temperature 40.5°C (105°F) or greater, convulsion(s) with or without accompanying fever, severe alterations of consciousness, generalized and/or local neurologic signs, or systemic allergic reactions. Although hemolytic anemia and thrombocytopenic purpura have previously been considered contraindications by the ACIP, the evidence of a causal link between these conditions and pertussis vaccination is not sufficient to retain them as contraindications.

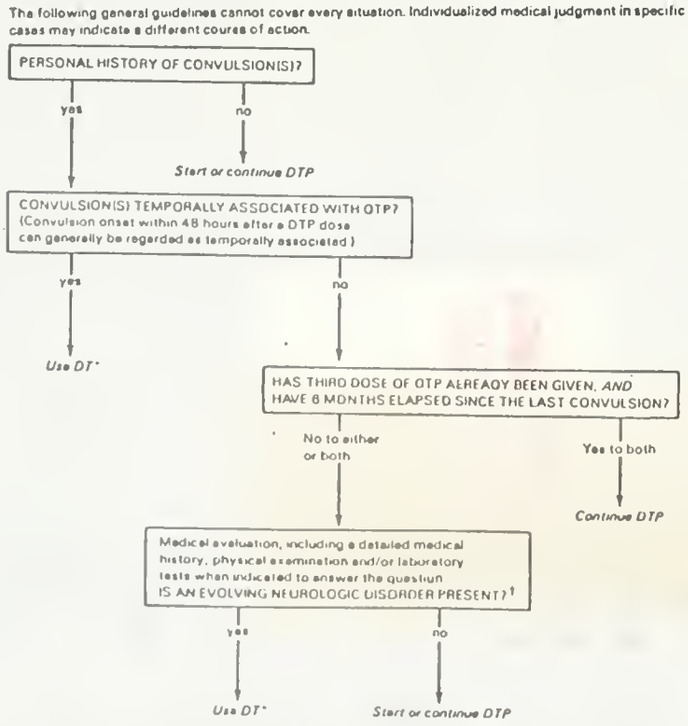
OTHER IMMUNIZATIONS FOR INFANTS AND CHILDREN FOR WHOM PERTUSSIS VACCINE IS CONTRAINDICATED

Immunization with DT and/or oral polio vaccine is not known to be associated with an increased risk of convulsions. Therefore, a history of prior convulsions is not a contraindication to receipt of these toxoids and vaccine. In addition, a history of prior convulsion(s) is not a contraindication for measles-mumps-rubella (MMR) vaccine. Further details concerning DTP vaccine or DT toxoids can be found in the 1981 ACIP statement (1).

References:
1. ACIP. Diphtheria, tetanus, and pertussis: guidelines for vaccine prophylaxis and other preventive measures. MMWR 1981;30:392-6,401-7.
2. CDC. Adverse events following immunization. Surveillance Report No. 1, 1979-1982(in press).

TABLE 1. Guidelines for diphtheria-tetanus-pertussis (DTP) immunization of infants and young children with histories of convulsion(s)

The following general guidelines cannot cover every situation. Individualized medical judgment in specific cases may indicate a different course of action.


PERSONAL HISTORY OF CONVULSION(S)?
yes
no
Start or continue DTP
CONVULSION(S) TEMPORALLY ASSOCIATED WITH DTP? (Convulsion onset within 48 hours after a DTP dose can generally be regarded as temporally associated.)
yes
no
Use DT*
HAS THIRD DOSE OF DTP ALREADY BEEN GIVEN, AND HAVE 6 MONTHS ELAPSED SINCE THE LAST CONVULSION?
No to either or both
Yes to both
Continue DTP
Medical evaluation, including a detailed medical history, physical examination and/or laboratory tests when indicated to answer the question IS AN EVOLVING NEUROLOGIC DISORDER PRESENT?†
yes
no
Use DT*
Start or continue DTP

*For infants and children who received diphtheria-tetanus (DT), but who, on further evaluation, can be given pertussis vaccine, a separate pertussis vaccine is available. It is distributed by the Michigan State Department of Public Health.

†If the presence or absence of an evolving neurologic disorder cannot be established within 6 months after deferral of DTP, DT should be given rather than further delaying immunization.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X
X
X RABIES PROPHYLAXIS AND BILLING
X Sending rabies vaccine in a timely manner is very
X crucial. The DHES budget for stocking rabies
X immune globulin and human diploid cell rabies
X vaccine is a revolving account; we must collect
X for what has been sent to cases in Montana before
X we can order more. If you do have an occasion
X to use our vaccine, PLEASE pay the bill promptly,
X so that our supplies stay available to everyone
X who may need them as you did. THANK YOU.
X
X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X
X
X INTERNATIONAL TRAVEL/PROTECTION FOR PATIENTS
X Physicians can protect the health of their patients
X who travel abroad. They should plan with them,
X well ahead of departure, to provide the appropriate
X required and recommended immunizations, and malaria
X chemoprophylaxis, if indicated.
X
X Further information may be obtained from Montana
X State Dept. of Health and from HHS Publications No.
X (CDC) 83-8280, "Health Information for Internation-
X al Travel" which is for sale by the Superintendent
X of Documents, U.S. Government Printing Office,
X Washington, D.C. 20402.
X
X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Recommendations of the Immunization Practices Advisory Committee (ACIP)

Update: Pneumococcal Polysaccharide Vaccine Usage - United States

RECOMMENDATIONS FOR VACCINE USE - Newly available data regarding vaccine efficacy support the broader use of pneumococcal vaccine in the United States. Vaccination is particularly recommended for the following:

ADULTS
1. Adults with chronic illnesses, especially cardiovascular disease and chronic pulmonary disease, who sustain increased morbidity with respiratory infections.
2. Adults with chronic illnesses specifically associated with an increased risk for pneumococcal disease or its complications. These include splenic dysfunction or anatomic asplenia, Hodgkin's disease, multiple myeloma, cirrhosis, alcoholism, renal failure, CSF leaks, and conditions associated with immunosuppression.
3. Older adults, especially those aged 65 and over, who are otherwise healthy.

CHILDREN
1. Children aged 2 years and older with chronic illnesses specifically associated with increased risk for pneumococcal disease or its complications. These include anatomic or functional asplenia, such as sickle cell disease or splenectomy, nephrotic syndrome, CSF leaks and conditions associated with immunosuppression.
2. Reccurrent upper respiratory diseases, including otitis media and sinusitis, are not considered indications for vaccine use in children.

General Considerations - When elective splenectomy is being considered, pneumococcal vaccine should be given at least 2 weeks before the operation, if possible. Similarly, when immunosuppressive therapy is being planned, as in patients who are candidates for organ transplants, the interval between the vaccination and the initiation of immunosuppressive therapy should be as long as possible.

Although vaccine failures have been reported in some of these groups, especially those who are immunocompromised, vaccination is still recommended for such persons because they are at high risk of developing severe disease.

ADVERSE REACTIONS - About half of those given pneumococcal vaccine develop mild side effects, such as erythema and pain at the injection site. In less than 1% of those given pneumococcal vaccine, fever, myalgias, and severe local reactions have been reported. Severe adverse effects, such as anaphylactoid reactions have rarely been reported--about 5 per million doses administered. For additional information, the package insert should be reviewed.

REVACCINATION - It should be emphasized that pneumococcal vaccine should be given only once to adults. Arthus reactions and systemic reactions have been common among adults given second doses and are thought to result from localized antigen-antibody reactions involving antibody induced by previous vaccination. Therefore, second or "booster" doses are not recommended, at least at this time. Data on revaccination of children are not sufficient to provide a basis for comment.

Persons who have received the 14-valent pneumococcal vaccine should not be revaccinated with the 23-valent vaccine, as the modest increase in coverage does not warrant the possible increased risk of adverse reactions. However, when there is doubt or no information on whether a person has ever received pneumococcal vaccine, the vaccine should be given. Complete records of vaccination can help to avoid repeat doses.

PRECAUTIONS - The safety of pneumococcal vaccine for pregnant women has not been evaluated. It should not be given to otherwise healthy pregnant women. Women at high risk of pneumococcal disease should ideally be vaccinated before pregnancy.

JUNE 1984	DISTRICT 1			DISTRICT 2					DISTRICT 3					DIST 4	DISTRICT 5						DISTRICT 6						DISTRICT 7					DIST 8			DIST 9	DISTRICT 10						DISTRICT 11			DISTRICT 12										TOTAL TO DATE	MONTHLY TOTAL
	Valley	Sheridan	Roosevelt	Phillips	Daniels	Valley	Richland	Prairie	McCone	Garfield	Dawson	Wibaux	Liberty	Hill	Blaine	Toole	Teton	Pondera	Glacier	Chouteau	Lewis & Clark	Jefferson	Broadwater	Yellowstone	Sweet Grass	Stillwater	Carbon	Big Horn	Wheatland	Petroleum	Musselshell	Judith Basin	Golden Valley	Fergus	Meagher	Park	Gallatin	Cascade	Lake	Lincoln	Sanders	Flathead	Powell	Missoula	Mineral	Ravalli	Granite	Deer Lodge	Silver Bow	Beaverhead	Madison	Gallatin	Powell	Silver Bow	1982	1983
ASEPTIC MENINGITIS																									1																													1	0	0	0
ENCEPHALITIS																																																					0	0	0	0
GIARDIA													1	2					1		1			1				1										1						3										60	45	5	12
HEPATITIS A																																						8						6										21	56	2	14
HEPATITIS B																																						1																4	10	1	1
MEASLES																																																					0	0	0	0
MENING DISEASE																																																					7	1	0	0
MUMPS																			1																																				5	5	0	1
PERTUSSIS																								1																															0	12	0	1
RABIES ANIMALS	1	2							1			1									1							1		1																									44	60	10	12
RUBELLA																																						2																	2	56	0	0
SALMONELLA		1																	2					1																					2	1										56	22	6	9
SHIGELLA														1																																								20	6	1	1
TUBERCULOSIS																		2	9		1							1		1																									74	14	0	2
GONORRHEA		4					2			1			6			1									1																															633	104	11	25

OTHER DISEASES Bacterial meningitis: Fallon,1; Missoula,1; Silver Bow,1. Campylobacter: Lake,1; Gallatin,2; Hill,1; Jefferson,1. Missoula,2. Ravalli,4. Malaria(imported): Missoula,1. Mycoplasma: Madison,1. Guillain-Barre Syndrome: Yellowstone,1. Early latent syphilis <1 year: Cascade,1; Mineral,1. Secondary syphilis: Yellowstone,1.

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Volume: 8:7 Month of: JUNE 1984

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June 1984

HEPATITIS B VACCINE FOR FAMILY MEMBERS OF ADOPTED HEPATITIS B CARRIERS?

An Oregon organization which facilitates adoption of Asian orphans by American families recently advised adoptive parents regarding hepatitis B. Its letter recommended parents to have adopted Asian children screened for the hepatitis B carrier state, and to consult with their family doctor if a child is found to be positive. (1) This letter has prompted several calls from physicians to our office regarding vaccination recommendations.

BACKGROUND

The recommendation to screen Asian orphans for hepatitis B stems from their reported high prevalence (5% to 27%) (2,3) of the carrier state. The Centers for Disease Control has recommended that susceptible household contacts of hepatitis B carriers be vaccinated. (4) The question, considering the high cost of hepatitis B vaccine, is whether this general recommendation should apply to all household contacts of adopted orphans found to be hepatitis B surface antigen (HBsAg) positive.

Few data are available to help determine whether certain categories of household contacts are at sufficiently low risk of infection to forego vaccination.

One prospective study of household contacts of acute hepatitis B cases suggested the risk of infection to be limited to spouses or sexual partners of such cases. In that study, 3 (23%) of 13 susceptible sexual partners of acute cases were infected, while none of 68 parents, siblings, or other domestic contacts developed infection. (5) Most of the literature regarding intrafamilial spread of hepatitis B infection from carriers has to do with perinatal transmission from carrier mothers to newborn infants. However, one study of susceptible 12-month-old infants of carrier mothers followed for an average of 17.5 months documented the annual incidence rate of infection to be 26%. (6)

No prospective studies of transmission from carrier children to parents or siblings have been reported. Several retrospective studies suggest, however, that such transmission does occur. One such study found the prevalence of serologic evidence of previous hepatitis B infection to be 29.9% among household contacts of carriers compared to 8.8% for contacts of control individuals. (7) One report found 11 of 12 members of a family to have serologic evidence of past or present hepatitis B infection. The unique genealogy of this family (four different mothers for the ten children) and the negative HBsAg status of the mother of five of the infected children led the authors to conclude that maternal to infant transmission was unlikely to be the cause of this family cluster. They suggested other non-parenteral routes to infection, including the sharing of chewing gum. (HBsAg was detected in three of four chewing gum samples from carrier children in this family.) (8)

A Swedish study tested 36 household contacts of 14 carrier children adopted from India and Korea. The children had been with their adoptive families for nine months to six years at the time of testing. Twenty-two (61%) of the household contacts had serologic evidence of hepatitis B infection. This compared to a 2% prevalence of antibody against surface antigen (anti-HBs) among blood donors in that region of Sweden. All categories of family contacts tested had evidence of infection: 3 of 4 grandparents, 8 of 12 mothers, 5 of 10 fathers and 6 of 10 siblings.

At least two situations have been reported in Oregon to suggest household transmission of hepatitis B by carriers who are not sexual partners or mothers. One involved probable infection of a sibling and mother by an elementary school-age adopted child.

In summary, we do not yet have sufficient information to recommend that certain family members of carrier children not be vaccinated because of low infection risk.

RECOMMENDATIONS

Until more information is available to distinguish the levels of hepatitis B infection risk for mothers, fathers, and siblings of carrier children, the Health Division recommends:

1) Adopted Asian children should be screened for hepatitis B surface antigen (HBsAg).

2) When an adopted Asian child is found to be HBsAg positive, whether e-antigen positive or not, hepatitis B vaccine should be recommended to all members of the immediate household. Whether to screen household members to identify those who have been previously infected and do not need vaccine is a matter of individual choice. When the adopted child has been in the household for some time, or where the family has a history of hepatitis or risk factors for hepatitis B, the likelihood of saving money by finding previously infected persons is increased.

3) Basic measures to prevent transmission from a carrier child should be recommended, especially when financial considerations preclude vaccination or when the physician and family decide the nature of interpersonal contact with the carrier makes transmission unlikely. These measures include:

   a. Minimizing contact with the carrier's blood, for example, in first aid situations. Hands should be washed thoroughly after providing first aid, and all spilled blood should be cleaned up and the contaminated surfaces wiped with a 1:10 dilution of household bleach.

   b. Avoiding activities which would lead to salivary exposures, such as extensive kissing and sharing of chewing gum and toothbrushes.

   c. Informing the carrier child, if still confirmed to be a carrier during adolescence, of the potential risk of transmission to his or her regular sexual partner, and the ptential use of vaccine to reduce this risk.

4) Since no risk of hepatitis B transmission by classroom contact has been documented, school officials need not be notified of any child's carrier status.

References -- 1. Holt International Children's Services: Letter to adoptive parents, March, 1984.
2. Nordenfelt E and Dahlquist E: HBsAg positive adopted children as a cause of intrafamilial spread of hepatitis B. Scand J Infect Dis. 1978;10:161-3.
3. Vernon TM, et al.: Hepatitis A and B in the family unit - nonparenteral transmission by asymptomatic children. JAMA 1976;235(26):2829-2831.
4. Centers for Disease Control: Recommendation of the Immunization Practices Advisory Committee(ACIP) - Inactivated hepatitis B virus vaccine. MMWR 1982;31(24):317-322,327-328.
5. Koff RS., et al.: Contagiousness of acute hepatitis B - secondary attack rates in household contacts. Gastroenterology 1977;72(2):297-300.
6. Beasley RP and Hwang LY: Postnatal infectivity of hepatitis B surface antigen-carrier mothers. J of Infect Dis. 1983;147(2):185-190.
7. Bernier RH, et al.: Hepatitis B infection in households of chronic carriers of hepatitis B surface antigen. Am J of Epidemiol. 1982;116(2):199-211.
8. Leichtner AM, et al.: Horizontal nonparenteral spread of hepatitis B among children. Ann Int Medicine 1981;94:346-349.

* Reprinted from Communicable Disease Summary, Oregon Health Division, Vol. 33. No. 10, May 12, 1984.

Vaccine Prices Going Up!!

Due to large increases in the prices of vaccines that the State Childhood Immunization Program has been providing to local public and private providers, the Program will no longer be able to provide private practice physicians and clinics with federally-funded vaccine. The costs of triple antigen (DTP) has tripled in price and we have concluded that, with the limited funding that is currently in place, we must curtail our Program to only those public providers who must depend upon our Program to provide vaccine to their patients. Each of our private providers can expect a formal letter to this effect in the next few weeks. We thank all our private providers for being participants in our Program and hope that funding will be made available to us through other sources.

OTA Releases Technical Memorandum on Pneumococcal Vaccine

Congressional Office of Technology Assessment
June 27, 1984

To protect the elderly from diseases caused by pneumococcal bacteria, the Federal government needs to do more than pay for vaccination under Medicare, according to a Congressional Office of Technology Assessment (OTA) technical memorandum*, Update of Federal Activities Regarding the Use of Pneumococcal Vaccine.

This memorandum follows a 1979 OTA study titled A Review of Selected Federal Vaccine and Immunization Policies. It was requested by Rep. Claude D. Pepper, Chairman of the Subcommittee on Health and Long-Term Care, House Select Committee on Aging.

Rep. Pepper stressed that the prevention of illness and disability is the most important component in the health care of our older citizens, and the prevention of pneumococcal pneumonia is especially significant because of the many deaths it causes throughout the United States.

"A hearing on February 2, 1984, and a report released by the Subcommittee on Health and Long-Term Care of the House Aging Committee, 'Deadly Cold: Health Hazards Due to Cold Weather,' addressed the topic of pneumococcal vaccine," Rep. Pepper noted. "The finding was that this vaccine, covered under Medicare, was being used on only a limited basis.

"The Immunization Practices Advisory Committee of the Centers for Disease Control has recommended vaccination of individuals over 65, especially those with chronic illnesses. The medical community should seriously consider ways to encourage increased use of the vaccine as outlined in the OTA memorandum. It is unfortunate that this effective vaccine is not being used as recommended."

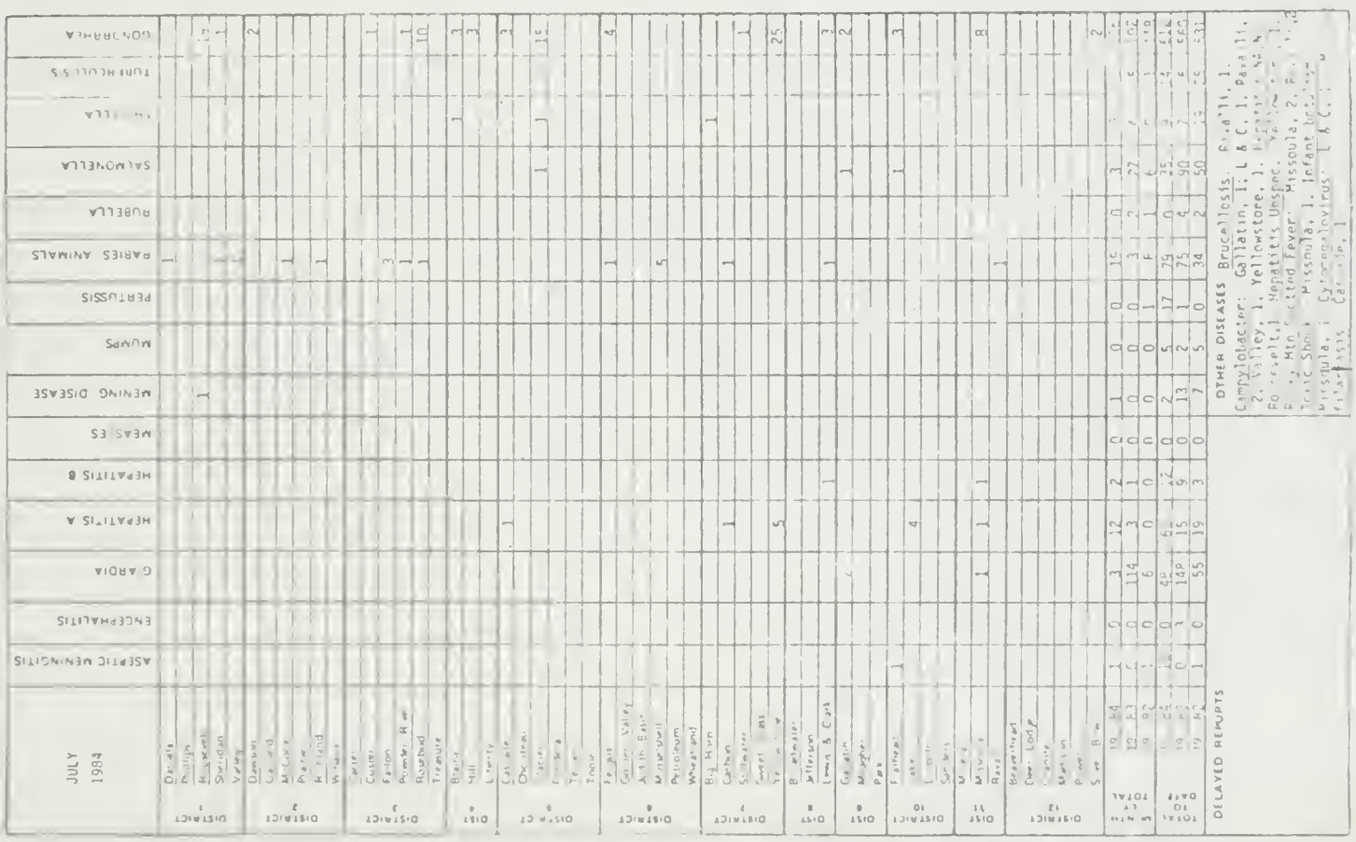
The OTA report notes that since July 1981, the Medicare program has paid 100 percent of the cost of pneumococcal vaccination for the elderly beneficiaries. This vaccination is the only preventive technology that is covered by Medicare, but despite this coverage, only about 25 percent of the people over age 65 have received the vaccine. The use of preventive technologies, such as vaccines, for adults is considerably low because neither adults nor their physicians are attuned to prevention.

Pneumococcal bacteria can cause several diseases, but pneumococcal pneumonia is the most common, with about 1.4 cases per 1,000 population every year. Pneumococcal disease is more common and more severe among elderly and other high-risk people. The new, more effective vaccine, marketed in 1983, is expected to be 80 percent effective in preventing disease and is considered to be a very safe vaccine.

To promote the use of pneumococcal vaccine, approaches beyond Medicare coverage will be needed to reach elderly adults. One possible approach is to vaccinate patients as they are discharged from hospitals. Another is to support the vaccinations through State grants that are administered by the Centers for Disease Control, says OTA.

The Immunizations Practices Advisory Committee determined that certain groups over the age of 2 should benefit from the vaccine. These groups include older adults and people with chronic illnesses, such as chronic heart, pulmonary, renal, or metabolic diseases.

OTA is a nonpartisan analytic support agency that serves the U.S. Congress. Its purpose is to help Congress deal with complex and often highly technical issues that increasingly confront our society. (CONTINUED ON BACK)



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(CONTINUED FROM OTHER SIDE)

Copies of the technical memorandum, Update of Federal Activities Regarding the Use of Pneumococcal Vaccine, are available to the public at the U.S. Government Printing Office (GPO), Superintendent of Documents, Washington, D.C. 20402. The GPO stock number is 052-003-00955-2; the price is $2.50. Copies for Congressional use may be obtained free of charge by calling the OTA publishing office at 4-8996. For further information please call Ellen Mika or Jean McDonald at (202) 226-2115.

OTA technical memoranda deal with specific subjects analyzed in recent OTA reports or with projects presently in progress at OTA. They are issued at the request of Members of Congress who are engaged in committee legislative actions. They are neither reviewed nor approved by the Technology Assessment Board.

The Montana Childhood Immunization Program asks that those clinics and offices receiving vaccines and other biologicals from the Program and the State Department of Health and Environmental Sciences, PLEASE ship mailing containers and ice packs back to the Program and Department immediately upon receipt of these containers. Our shipping volume is such that we need to have these containers available to us for future shipping. We have received reports that a number of these containers have been thrown out or otherwise destroyed. The cost of these shippers is approximately $13.00 each. Please return fiberboard boxes, styrofoam containers and enclosed ice packs to the Program and help us keep our overhead costs DOWN!

1984 TB NATIONAL CONFERENCE

September 12-14, 1984
Ramada Inn Central
Atlanta, GA
Sponsored by Centers for Disease Control

This National Tuberculosis Conference will provide a forum for State and local tuberculosis professionals to present and discuss the implementation of existing and developing tuberculosis control strategies

DAILY SCHEDULE

	Wednesday, Sept 12	Thursday, Sept 13	Friday, Sept 14
AM	*Registration *Future Directions	*Chemotherapy of TB	*Program Services Update *Management of TB in Refugees and Immigrants
PM	*TB Cooperative Agreements *Improving Patient Compliance	*New Developments in TB and Mycobacteriology	

ATTENDANCE

State and big city tuberculosis control officers Tuberculosis Cooperative Agreement project directors CDC public health advisors, and other key health department staff are invited and encouraged to attend No registration fee will be required

CONFERENCE AGENDA

There have been many exciting developments in tuberculosis control since the last CDC-sponsored national conference in 1977 Speakers have been selected to provide information and participate in discussions about many critical issues, as follows

- Future directions and federal support for tuberculosis control
- Implementation and impact of Tuberculosis Cooperative Agreements (A total of $5 million was awarded in FY 1983-84 to 48 high-incidence areas)
- Use of directly observed therapy and other methods to improve patient compliance
- Alternative short-course chemotherapy regimens
- New research and developments in tuberculosis and mycobacteriology (including new therapies e.g., ansamycin, and rifater, preventive therapy, drug-resistance, surveillance, INH hepatitis, recurrent tuberculosis, tuberculosis in nursing homes, demographic risk factors, surveillance of non-tuberculosis mycobactena, skin testing, and laboratory advances
- Case verification criteria and reporting
- Program evaluation
- Training
- Managing tuberculosis in refugees and immigrants screening treatment and notification procedures

REGISTRATION FORM — SEPTEMBER 12-14, 1984 • Ramada Inn Central, Atlanta

1984 TB NATIONAL CONFERENCE

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Affiliation _____

Position Title _____

RETURN BY JULY 31, 1984 You will receive confirmation of your conference registration and a hotel registration card

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Postgraduate Courses on Clinical Management and Control of Tuberculosis

Denver, Colorado

October 22-26, 1984

January 21-25, 1985

April 15-19, 1985

General Information

All courses will be held at the National Jewish Hospital and Research Center/National Asthma Center, 3800 East Colfax Avenue, Denver, Colorado 80206.

There is a $325.00 tuition fee for the course, a reduced tuition fee is charged for physicians in training. Tuition fees include a $15.00 non-refundable administration charge. Consideration will be given to waiving the tuition fee for missionaries upon special written request. For others who cannot get full support from their employing organization or outside sources, consideration can be given to waiving a portion of the fee upon special written request.

Registration is limited to 5 participants for each course. Because the courses are frequently filled, early registration is advised.

If you or the organization for which you work do not have funds to cover your transportation and per diem expenditures, we suggest that you contact your state or local Lung Association for possible assistance.

If you wish to attend a future session, please indicate your interest on the registration form and return it to us. We will notify you when dates are set.

This program is acceptable for 38 prescribed hours by the American Academy of Family Physicians.

The National Jewish Hospital and Research Center/National Asthma Center is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

NJHRC/NAC designates this Continuing Medical Education Activity for 38 credit hours in Category I of the Physician's Recognition Award of the AMA.

This program has been approved for 38 contact hours by the Colorado Nurses Association which is accredited by the Western Regional Accrediting Committee of the American Nurses Association.

Course Content

CLINICAL TUBERCULOSIS

1. Transmission and pathogenesis of adult and pediatric tuberculosis including extrapulmonary lesions and disease with atypical mycobacteria
2. Classification of tuberculosis
3. Chemotherapy of tuberculosis including previously untreated cases, retreatment of drug resistant cases, and disease due to the atypical mycobacteria
4. Management of toxicity and hypersensitivity reactions to all of the anti-tuberculosis drugs
5. Measures for insuring uninterrupted drug ingestion by outpatients

PUBLIC HEALTH

1. Prevention, treatment or chemoprophylaxis and risk factor epidemiology
2. Factors influencing infectiousness of tuberculosis
3. Advances in tuberculin testing
4. Casefinding and contact investigation
5. Immunization for TB
6. Planning tuberculosis control programs with particular emphasis on organization of outpatient chemotherapy

BACTERIOLOGY

1. Collection, transportation and processing of specimens induced sputa, gastrics, bronchial brushing and washings and spontaneous sputa
2. Techniques for staining and culture of organisms
3. Techniques and interpretation of drug susceptibility testing
4. Identification of various mycobacteria
5. Mode of action of anti-TB drugs
6. Serum drug level determinations

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TB Course Office
Department of Medicine
National Jewish Hospital & Research Center
3800 East Colfax Avenue
Denver, Colorado 80206

Checks made payable to National Jewish Hospital
Telephone 303 398-1700

Tuition ☐ $325.00 Physician in Training ☐ $150.00

Deposit of $15.00 or total payment must accompany application

NAME _____ ADDRESS _____

MD ____ DO ____ RN ____ PHN ____ OTHER ____ TELEPHONE _____ ZIP _____

Early registration advised.

Course you wish to attend:

Oct 22-26, 1984 _____ Jan. 21-25, 1985 _____ Apr 15-19 1985 _____ Future Course _____

PRESENT POSITION _____ INSTITUTION AFFILIATION _____

The following article is reprinted with the permission of the author: Linda McCaig, MPH, State of Florida Department of Health and Rehabilitative Services, Acute/Communicable Disease Program as printed in the EPI-GRAM newsletter, July 1984.

H. FLU RECOMMENDATIONS: Hemophilus influenzae type b (Hib) is the most common cause of bacterial meningitis (10,000 cases per year) and acquired mental retardation in the U.S. Mortality is approximately 5-10% and complications are found in up to 50% of survivors. Non-meningeal Hib invasive disease (epiglottis, pneumonia, septic arthritis, cellulitis, pericarditis, bacteremia, osteomyelitis, and epididymal orchitis) accounts for an additional 5,000 cases per year (1).

Epidemiology: The peak incidence of Hib meningitis occurs in those <2 years old (YO), especially in the 6-12 month old age group. In Florida, the number of cases in those <4 YO/total number of cases reported are: 246/271 (1981), 302/337 (1982), 305/333 (1983). Through July 13, 1984, 201 cases of Hib meningitis have been reported.

High risk groups include the immunocompromised, patients recently recovered from hemophilus infection (recurrence rate=1%), persons with abnormally functioning spleen, persons with sickle cell disease, persons with low socio-economic status, and day care center (DCC) and household contacts of cases. The risk of disease in household contacts has been observed as follows: <24 MO 3.2%; 24-47 MO 1.2%; 48-71 MO 0.1%; and for all ages 0.3% (1). Most secondary cases occur within one week.

Controversy: The American Academy of Pediatrics (AAP) and the CDC differ regarding the use of chemoprophylaxis when a single case occurs in a DCC. The AAP states that "rifampin prophylaxis is no longer recommended routinely for day care contacts of a solitary case of Hemophilus influenzae type B invasive disease..." for the following reasons: there is a lack of convincing data which would indicate that the use of rifampin prevents a second case in a DCC; the risk of secondary disease is uncertain; and the logistic difficulties in implementing chemoprophylaxis in a DCC are considerable (2).

The recently completed, unpublished CDC Collaborative Study of Secondary Spread of Hib Disease in Day Care found, after controlling for age, that rifampin was 86% effective in preventing invasive Hib disease (p=.03). For those children 0-23 MO who were not treated with rifampin, the risk of secondary disease was 2.9%, which is similar to the risk of secondary disease previously established for household contacts (1). The CDC believes that the results of this study lend support to the recommendation to provide prophylaxis after a single case in a DCC.

Editorial note: State of Florida, Department of Health's position at this time is one of agreement with CDC (3). In view of the increased risk of disease in household and DCC contacts <4 YO and the efficacy of rifampin in eliminating carriage of H. influenzae organisms and preventing secondary cases of disease, we recommend that:

1. Contacts who develop symptoms suggestive of Hib disease, such as fever of headache, should be evaluated promptly by a physician.
2. In any household in which a case of invasive Hib disease has occurred and which has another child <4 YO, all members of the household, including adults, should receive rifampin in a dosage of 20 mg/kg per dose once daily (maximum dose of 600 mg/day) for 4 days; dose for those <1 MO is 10 mg/kg once daily for 4 days.
3. DCC:
   a. In DCC classrooms in which a single case of Hib disease has occurredand in which children <4 YO are present, all parents should be notified regarding occurrence of a case and the possibility of increased risk to their children. (State of Florida, Department of Health is planning to share with local public health units a manual of letters to parents concerning infectious diseases in DCCs).
   b. All children and staff in the classroom should be considered forchemoprophylaxis. A contact is usually defined as a child who is regularly assigned to the patient's classroom for more than 4 hours in the seven days prior to the patient's onset.
   c. All contacts and staff should receive prophylaxis concrrently (at the same time or within 3 days) to prevent "ping-ponging" of infection.
   d. Coverage with rifampin must exceed 75% of contacts to be effective.
   e. New admissions should be halted until prophylaxis is complete.
   f. Surveillance for cases of Hib should be conducted for at least 3 months following the onset of the index case and families should be informed if there are any further cases.
4. Chemoprophylaxis must be instituted within 7 days of onset of the index case. If more than 7 days have passed since the last contact with the index case, chemoprophylaxis is probably not indicated.
5. The index case should receive rifampin before hospital discharge.
6. Rifampin: 150 mg and 300 mg capsules are available. The drug should be mixed in apple sauce and for the best results should be given at the DCC. It does no good to just write a prescription; many pharmacies do not stock rifampin. Rifampin causes orange body secretions; soft contact lenses may be permanently stained. Rifampin should not be used in pregnant women, because it is teratogenic in laboratory animals. However, it is safe to give during breastfeeding. Rifampin may interfere with the effectiveness of oral contraceptives; alternate methods should be considered for the remainder of that cycle. Absorption of rifampin is decreased when the stomach contains food.
7. Nasopharyngeal cultures are not helpful and should not be obtained, as they are expensive, take too much time, and carriers are probably not at risk.

References: 1. A Symposium on Infectious Diseases in Day Care: Management and Prevention. Minneapolis, MN, June 21-23, 1984.
2. Pediatric News. May 1984; 18(5): 1, 42.
3. CDC. Prevention of secondary cases of Haemophilus influenzae type b disease. MMWR 1982; 31: 672-80.

The Childhood Immunization Program of the Montana Department of Health and Environmental Sciences will be conducting a survey of licensed day care centers across the state in the next two months to be completed by November 1, 1984. Field health officers and nursing consultants will be checking the immunization status of Montana licensed day care attendees during these visits. The survey is an annual requirement of the Immunization Program grant objectives in accordance with federal guidelines.

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AUGUST 1984		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels															
	Phillips					1										2
	Roosevelt															19
	Sheridan										1					
	Valley															
DISTRICT 2	Dawson															2
	Garfield															
	McCone										2					
	Prairie															
	Richland															1
	Wibaux															
DISTRICT 3	Carter															
	Custer															3
	Fallon										1					
	Powder River										1					
	Rosebud			1							3					
	Treasure															
DIST. 4	Blaine				1											2
	Hill			3					1						1	2
	Liberty															
DISTRICT 5	Cascade	1				1							1			3
	Chouteau										1					
	Glacier			1											2	4
	Pondera	1														1
	Teton			1												
	Toole															
DISTRICT 6	Fergus															1
	Golden Valley															
	Judith Basin															
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn															1
	Carbon															
	Stillwater															1
	Sweet Grass			1												
	Yellowstone				1	1			1						1	38
DIST. 8	Broadwater															
	Jefferson										1					2
	Lewis & Clark	1		7		1					1				1	3
DIST. 9	Gallatin			2									1	1		1
	Meagher															
	Park															
DISTRICT 10	Flathead										1				1	3
	Lake				12											1
	Lincoln	2														1
	Sanders				14											1
DIST. 11	Mineral												1			
	Missoula			1	1	1							2			4
	Ravalli			1	1	1										
DISTRICT 12	Beaverhead															
	Deer Lodge															
	Granite															
	Madison															
	Powell				1					2						
	Silver Bow															1
MONTHLY TOTAL	19 84	5	0	18	30	6	0	0	2	2	12	0	5	1	6	97
	19 83	2	0	9	3	8	0	0	0	0	11	0	29	6	0	105
	19 82	1	0	7	2	0	0	0	0	0	13	0	12	6	3	112
TOTAL TO DATE	19 84	15	0	66	98	18	0	2	7	19	91	0	40	10	20	709
	19 83	2	3	157	18	17	0	0	2	1	86	4	119	13	40	665
	19 82	3	0	73	23	4	0	7	5	1	65	3	74	26	29	873

DELAYED REPORTS:

Rocky Mtn Spotted Fever: (July) Missoula, 2; Ravalli, 2.

OTHER DISEASES: Aseptic meningitis: Oregon, 1. Bacterial meningitis: Missoula, 1; Ravalli, 1. Campylobacter: Cascade, 2; Gallatin, 1; Pondera, 1; Missoula, 4; Ravalli, 3. CTF: Ravalli, 1; Yellowstone, 1. Legionella: Cascade, 1. Tularemia: Big Horn, 1; Gallatin, 1. Toxoplasmosis: Sanders, 1. Cytomegalovirus: Beaverhead, 1; Cascade, 1; Yellowstone, 1. Relapsing fever: Lake, 1.

SUMMARY OF PEDIATRIC AIDS CASES REPORTED TO CDC

As of May 1984, 57 cases of acquired immunodeficiency syndrome (AIDS) have been reported in children under 5 years of age. For the limited purposes of epidemiologic surveillance, CDC defines a case of pediatric AIDS as a child who has had a reliably diagnosed disease at least moderately indicative of underlying cellular immunodeficiency or any other reduced resistance reported to be associated with that disease. The diseases accepted as sufficiently indicative of underlying cellular immunodeficiency are: 1) cryptosporidiosis, intestinal, causing diarrhea for over 1 month, (on histology or stool microscopy); 2) Pneumocystis carinii pneumonia, (on histology or microscopy of a "touch" preparation or bronchial washings); 3) strongyloidosis, causing pneumonia, central nervous system infection, or disseminated infection, (on histology); 4) toxoplasmosis, causing pneumonia or central nervous system infection (on histology or microscopy of a "touch" preparation); 5) candidiasis, causing esophagitis (on histology, or microscopy of a "wet" preparation from the esophagus, or endoscopic findings of white plaques on an erythematous mucosal base); 6) cryptococcosis, causing central nervous system, or disseminated infection (on culture, antigen detection, histology, or India ink preparation of CSF); 7) "atypical" mycobacteriosis (species other than M. tuberculosis or M. leprae), causing disseminated infection (on culture); 8) cytomegalovirus, causing pulmonary, gastrointestinal tract, or central nervous system infection (on histology), with inset after 6 months of age; 9) herpes simplex virus, causing chronic mucocutaneous infection with ulcers persisting for more than 1 month, or pulmonary, gastrointestinal tract, or disseminated infection (on histology, culture, or cytology), with onset after 1 month of age; 10) progressive multifocal leukoencephalopathy (presumed to be caused by Papovirus) (on histology); 11) Kaposi's sarcoma (on histology); and 12) lymphoma limited to the brain (on histology). Congenital immunodeficiencies that must be excluded are severe combined immunodeficiency, DiGeorge syndrome, Wiskott-Aldrich syndrome, ataxia-telangiectasia, graft versus host disease, neutropenia, neutrophil function abnormality, agammaglobulinemia, or hypogammaglobulinemia with raised IgM. Congenital infections to be excluded are toxoplasmosis or herpes simplex virus infection with onset in the first month after birth or cytomegalovirus infection with onset in the first 6 months after birth. As with adults, immunodeficiency associated with immunosuppressive therapy, lymphoreticular malignancy, or starvation must also be excluded.

The 57 reported cases ranged in age from 2 months to 4 years at time of diagnosis (median 8 months). Of the 56 children with known race, 16 (29%) were white, 28 (50%) were black, and 12 (21%) were hispanic. Thirty-one (54%) were male and 26 (46%) were female.

Thirty-six (63%) of the 57 children had at least on parent who was a member of a high-risk group or had AIDS, 12 (21%) of the children did not have a high-risk parent but had received a blood transfusion during the neonatal period, and 9 (16%) have had no risk factor identified thus far. Of the 52 cases with known outcome, 39 (75%) have died.

The 57 cases have been reported from 12 states:

California - 7	Georgia - 1	Missouri - 1	New York - 23
Connecticut - 2	Iowa - 1	North Carolina - 1	Pennsylvania - 3
Florida - 9	Illinois - 2	New Jersey - 6	Texas - 1

The proportion of reported cases in children diagnosed each year is similar to the proportion of adult cases diagnosed each year:

	1980	1981	1982	1983	1984
	#(%)	#(%)	#(%)	#(%)	#(%)
Pediatric AIDS cases (Total to date = 57)	2(4)	9(16)	12(21)	28(49)	6(11)
Adult AIDS cases (Total to date = 4,615)	45(1)	238 (5)	952(21)	2421(52)	942(20)

ISOLATION PRECAUTIONS AND INFECTION CONTROL GUIDELINES AVAILABLE

Do you have established measures to control disease transmission in your health care provider settings? The Hospital Infections Program, Center for Infectious Diseases, Centers for Disease Control (CDC) provides guidelines for nosocomial infection and secondary spread in a hospital setting which can be applied to isolation precautions and infection control to and from other health care personnel. This can be obtained by writing to: Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

ASK FOR: CDC Guidelines for Isolation Precautions in Hospitals -
Julia S. Garner, RN, MS and Bryan P. Simmons, MD

AND CDC Guidelines for Infection Control in Hospital Personnel -
Walter W. Williams, MD, MPH

MMWR - Morbidity and Mortality Weekly Report

The Morbidity and Mortality Weekly Report is available free of charge to state and local health departments. A complete list of addresses for Montana's local health departments has been submitted to Centers for Disease Control requesting copies be supplied to those facilities. If official health agencies have not been receiving the MMWR, they should soon be getting it.

Please do not continue to accept more copies than you need. If you receive unused copies, contact the MMWR office at the address listed on the back cover of each issue and cancel any unneeded subscriptions.

The Office of Management and Budget is considering demanding a reduction in the number of agencies eligible to receive the MMWR free of charge. One way to avoid losing the free subscription privilege is not to abuse it.

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SEPTEMBER 1984	ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1															
Daniels															
Phillips															2
Roosevelt															12
Sheridan										1					
Valley										1			1		
DISTRICT 2															
Dawson															3
Garfield															
McCone										1					
Prairie															
Richland															5
Wibaux															
DISTRICT 3															
Carter															
Custer										1		1			1
Fallon										1					
Powder River										2					
Rosebud	4									1					2
Treasure															
DIST 4															
Blaine												1			3
Hill			2												4
Liberty			1												
DISTRICT 5															
Chouteau			1									2			4
Glacier			1									1	1	2	4
Pondera															
Teton															
Toole															
DISTRICT 6															
Fergus										1					
Golden Valley															
Judith Basin															
Musselshell															1
Petroleum															
Wheatland															
DISTRICT 7															
Big Horn															9
Carbon															
Stillwater															
Sweet Grass															
Yellowstone	1		4	1								1			17
DIST 8															
Broadwater															1
Jefferson															
Lewis & Clark			2	1								3			3
DIST 9															
Gallatin															4
Meagher															
Park															1
DISTRICT 10															
Flathead	1		1	1											1
Lake	1		3	7	1							1			1
Lincoln															
Sanders			1	2											
DISTRICT 11															
Mineral															
Missoula															
Ravalli															2
DIST 12															
Beaverhead	1														
Deer Lodge												1			
Granite															1
Madison															
Powell															
Silver Bow			1												
TOTAL TO DATE	3	0	176	25	6	0	7	5	1	92	3	94	31	36	970
MONTHLY TOTAL	2	0	13	2	2	0	0	0	0	0	0	11	2	3	81
1984	2	2	31	3	1	0	1	1	0	5	2	22	3	7	95
1983	5	2	13	7	2	0	0	2	0	17	0	10	5	7	106
1982	7	2	72	113	44	2	2	19	19	100	0	51	12	23	790
1981	2	0	188	21	18	0	1	1	1	91	6	146	16	47	760
1980	3	0	176	25	6	0	7	5	1	92	3	94	31	36	970

DELAYED REPORTS

OTHER DISEASES Campylobacter: Ravalli, 1; Richland, 1. Equine encephalitis: Sanders, 1; Powder River, 1. Hepatitis (unspec.): Lake, 1. Leptospirosis: Cascade, 2. Cytomegalovirus: Yellowstone, 1. Syphilis: Dawson, 1 primary; Deer Lodge, 1 early latent <1 year.

INFLUENZA VACCINE 1985-86

During this current influenza year, much confusion and numerous problems have surfaced when local agencies have attempted to purchase vaccine through the state term contract system. These problems will be resolved through several steps taken before next year's orders are formulated.

1) Local agency billing accounts - Those public providers who wish to take advantage of the term contract price should contact the appropriate Parke-Davis representative in their area so that he can personally visit the agency to set up an individual billing account for the agency. The salesmen are.

Gary Zinn	Jay Schaaf	Bob Becker
4304 Edwards Ave.	1635 Broadmoor Dr.	905 15th Street
Missoula MT 59801	Billings MT 59105	Butte MT 59701
549-6642	245-8168	782-3570

2) In order to gain the best possible price for next year, the purchasing agent for the State Department of Administration requests each agency submit anticipated numbers of doses needed for the 1985-86 influenza year. Each agency should indicate their anticipated needs below and return the form to the Immunizations Program / Cogswell Bldg. / Helena / MT / 59620. 444-4740. The Program will provide the state purchasing agent a total of anticipated doses for submission of bid for next year's vaccine.

- - - -

TUBERCULOSIS UPDATE: This Disease is Still with Us

Judy Gedrose, RN, MN, Epidemiologist

Tuberculosis has not been eradicated. In some instances, the TB control program has been eradicated. Mycobacterium tuberculosis is the infecting organism. It is a persistent organism and the largest reservoir is infected people, although we do know it can survive outside the body for at least six hours while floating in the air. Its survival on dishes and other fomites has not been proven.

How large is the reservoir of infected people? There are 5 to 10 million new cases in the world per year and the rates are not declining in many areas. One-half of these cases are infectious--capable of passing the Mycobacterium tubercle bacillus on to others. There are 2 to 3 million deaths/year in the world due to tuberculosis. How does this affect Montana? With the present state of rapid international travel, persons from high incidence TB areas do come to Montana, i.e. South East Asians and Central Americans. Refugees from eastern European countries have also entered the state. These high incidence area immigrants are also likely to be carrying organisms resistant to the drugs usually used to successfully treat TB and can introduce drug resistant strains into our indigenous population.

Yearly in the United States, 25,000 new cases are diagnosed. There are approximately 1 to 2 million infected persons in the U.S. Until there are no more untreated, infected persons in residence, there must be a maintenance level TB program if transmission is to be curbed. There are currently approximately 7,500 infected persons living in Montana.

The American Committee of Chest Practitioners have developed standards for tuberculosis control in the Americas. Until now, the American Thoracic Society - Centers for Disease Control recommendations have been the most widely published and best substantiated standards. The AACP recommendations do not greatly vary from ATS-CDC recommendations, but are more succinct and allow less variation in treatment. The AACP concensus recommendations are to be published in several national journals including Chest, October, 1984. Highlights of the AACP recommendations that differ or are more direct than the previous ATS-CDC recommendations are as follows:

1. Tuberculosis drugs must be given for six months and a six-month treatment with four drugs may be adequate.
2. Infants, children, and adolescents should have treatment similar to adults, except for adjusting the dosage to body weight.
3. Extrapulmonary tuberculosis can be treated similarly to pulmonary tuberculosis.
4. All treatment should be given on an ambulatory basis.
5. All pulmonary cases with drug resistant organisms should be followed as though the person were infectious, i.e. respiratory precautions enforced during treatment.

Of the 43 new cases in Montana in 1983, 21 were hospitalized from 1 to 65 days. Unless there are other health problems, TB patients do not need to be hospitalized. "There is absolutely no reason a case should be hospitalized to receive medication for TB. To put someone in the hospital at $200 per day to take $1 of drugs is not cost effective", stated Laurence Farer, M.D. at the 1984 TB National Conference.

During the years 1980 to 1984 (to date), 11 Montana resident's deaths can be attributed to tuberculosis. New cases have totalled 163 in Montana in that same time period, giving a case to fatality ratio of 15:1. Tuberculosis still causes expenditure of a sizable amount of dollars in Montana each year. The case to fatality ratio is high. Montana health care providers need to maintain a high index of suspicion for tuberculosis.

Notice to Readers

Availability of *MMWR*-Related Publications

Two supplemental issues of the *MMWR* have recently been published:

(1) Supplement: Adult Immunization: Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1984;33(No. 1S).;

(2) Surveillance Summary: CDC Surveillance Summaries (published four times a year). MMWR 1984;33(No. 1SS).

These publications are available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

The New England Journal of Medicine
MMS Publications
C.S.P.O. Box 9120
Waltham, Massachusetts 02254

Ochsner Clinic
1514 Jefferson Highway
New Orleans, Louisiana 70121

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OCTOBER 1984		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels															
	Phillips															
	Roosevelt			2		1										3
	Sheridan												1			
	Valley															
DISTRICT 2	Dawson										2					1
	Garfield															
	McCone															
	Prairie															
	Richland															
	Wibaux															
DISTRICT 3	Carter															
	Custer															
	Fallon										1					
	Powder River										3					
	Rosebud										1					2
	Treasure															
DIST. 4	Blaine															3
	Hill			1												4
	Liberty			1												
DISTRICT 5	Cascade			1	1											4
	Chouteau															1
	Glacier				1									1		8
	Pondera															
	Teton															
	Toole															
DISTRICT 6	Fergus															
	Golden Valley															
	Judith Basin															
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn			1												12
	Carbon															
	Stillwater															
	Sweet Grass															
	Yellowstone			1									1			15
DIST. 8	Broadwater															
	Jefferson															
	Lewis & Clark			3												8
DIST. 9	Gallatin			6					1				1			
	Meagher															1
	Park															
DISTRICT 10	Flathead			3		2										2
	Lake			4	7											
	Lincoln															
	Sanders				2											1
DIST. 11	Mineral															
	Missoula			7	1								3			8
	Ravalli			1	1	1										
DISTRICT 12	Beaverhead															
	Deer Lodge			1									1			1
	Granite															
	Madison															
	Powell			1												
	Silver Bow															1
MONTHLY TOTAL	19 84	0	0	33	13	4	0	0	1	0	7	0	7	1	0	75
	19 83	3	0	16	1	0	3*	0	3	0	11	0	10	0	0	98
	19 82	1	0	10	1	0	0	2	1	0	0	0	18	7	3	136
TOTAL TO DATE	19 84	26	0	112	126	24	0	2	8	19	107	0	58	13	22	865
	19 83	8	2	204	22	18	3*	1	7	1	102	6	156	16	42	858
	19 82	4	0	96	26	6	0	9	6	1	82	3	102	38	39	1115

DELAYED REPORTS: September: Bacterial meningitis, Missoula, 1; Silver Bow, 1; Teton, 1.
DELETE: 1 TB case, Mineral, May 1984.

CORRECTION: SYPHILIS REPORTED IN DEER LODGE CO. IN SEPTEMBER WAS INCORRECT. THAT CASE WAS A POWELL CO. RESIDENT.

OTHER DISEASES: Amebiasis: Missoula, 2.
Bacterial meningitis: Sheridan, 1.
Campylobacter: Lake, 3; Missoula, 2; Ravalli, 1 Silver Bow, 1; Valley, 1.
Hepatitis, Non-A, Non-B: Yellowstone, 1.

Department Policy Statement on Herpes simplex viruses

With the concurrence of Dr. John J. Drynan, director of the Montana State Department of Health and Environmental Sciences, Judith Gedrose, PN, MN, state epidemiologist, has presented a policy statement for the department on prevention of herpes transmission in hospital nurseries.

The Department's statement follows the guidelines of the Centers for Disease Control and came in response to requests for guidance on the matter from attendees at the NAACOG (Nurses Association of American College of Obstetrics and Gynecology) conference in May 1984 held in Kalispell, Montana.

The policy statement:

HERPES SIMPLEX VIRUSES

Herpes simplex viruses (HSV) can be transmitted among personnel and patients through either primary or recurrent lesions or through secretions (such as saliva, vaginal secretions, infected amniotic fluid) which might contain the virus when no lesions are obvious. Although many sites can become infected, exposed areas of skin are most likely to be involved, particularly when minor cuts, abrasions, or other skin lesions are present. Direct contact with lesions or infected secretions is the principal mode of spread.

Transmission of HSV from Patients to Personnel

Personnel may develop an infection of the fingers (herpetic whitlow or paronychia) from exposure to contaminated oral secretions. Such exposure is a distinct hazard for nurses, anesthesiologists, dentists, respiratory care personnel, and other personnel who might have direct contact with either oral lesions or respiratory secretions from patients. Less frequently, personnel might develop infection of the fingers from exposure to contaminated genital secretions or lesions on skin or mucous membranes. Personnel can protect themselves from such infections by 1) avoiding direct contact with lesions, 2) wearing gloves on both hands or using "no-touch" technique for all contact with oral or vaginal secretions, and 3) thorough handwashing after patient contact.

Transmission of HSV from Personnel to Patients

Currently, there is no evidence that personnel with genital infections pose a high risk to patients if personnel follow good patient-care practices. The risk posed by personnel with orofacial herpes to patients is unknown. Personnel with oral infections, however, can reduce the risk of infecting patients by 1) wearing an appropriate barrier--such as a mask or gauze dressing--to prevent hand contact with the lesion, 2) washing hands well before all patient care, and 3) whenever possible, not taking care of patients at high risk of severe infection such as neonates, patients with severe malnutrition, severely burned patients, and patients in immunodeficient states. The potential risk of infecting high-risk patients must be weighed against the possibility of compromising patient care by excluding personnel with orofacial herpes.

Personnel with herpetic whitlow might be more likely to transmit infection by contact. Personnel can prevent transmission of HSV to patients by not working when they have active infections of the hands. Although some have suggested that personnel with herpetic whitlow may have patient contact if they wear gloves, the adequacy of this method of preventing transmission of infection is unknown.

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DIPHTHERIA-TETANUS-PERTUSSIS VACCINE SHORTAGE -- UNITED STATES

Reprinted from MMWR Vol. 33/No. 49 - December 14, 1984

In the past 6 months, major changes have occurred in the pattern of manufacture and distribution of diphtheria-tetanus-pertussis* (DTP) vaccine in the United States. Now, two of the three U.S. commercial manufacturers (Wyeth and Connaught, Inc.) have stopped distribution of their products. Thus, only one manufacturer (Lederle) now markets DTP vaccine in the United States. Lederle has been increasing its production and expanding its facilities to meet current needs. Careful monitoring of supplies and production schedules previously indicated that national supplies would be adequate. However, some recent lots of Lederle DTP vaccine have failed to meet the manufacturer's requirements for release. Production and testing of this three-component vaccine is complex and requires several months. No new vaccine lots may be available until sometime in February 1985. Comparison of available stocks and the quantity of DTP vaccine now being distributed with the usual national utilization of DTP vaccine indicates that, if current use patterns continue, beginning in January 1985, supplies of DTP vaccine will be very limited, and some areas may be without DTP vaccine. This situation may continue through most of 1985.

To minimize the health impact of this shortage, two major options exist--to reduce the amount of vaccine given in a particular dose and to postpone one or more doses. Because it is impossible to predict the degree of protection conferred by partial doses, this option is not recommended (1). Consequently, consideration has been given to the possibility of postponing one or more doses of the current immunization schedule, which calls for the administration of DTP vaccine at 2, 4, 6, and 18 months of age, with a fifth dose at 4-6 years of age.

With pertussis, there is a significant risk of infection in infancy and early childhood, with 2,463 cases reported in 1983 (51% of them among infants under 1 year old). Additionally, infants are more likely to suffer complications or death from pertussis than are older children. Consequently, it is critical to continue providing protection against pertussis to infants. The first three doses of DTP vaccine provide protection against pertussis in 70-90% of recipients and immunity to diphtheria and tetanus in over 90% of recipients (2-4). The doses given at 18 months and at 4-6 years of age enhance protection through the preschool and early school years, respectively.

Taking all these factors into account, interim postponement of the doses of DTP vaccine given at 18 months and at 4-6 years of age could achieve substantial savings in the rate of DTP vaccine use, while still protecting those at greatest risk of these diseases. To have enough vaccine to provide initial protection to all young infants until larger quantities of DTP vaccine are again available, it will be necessary to begin this approach immediately.

After consultation with members of the Immunization Practices Advisory Committee and the Committee on Infectious Diseases of the American Academy of Pediatrics, the following interim recommendations are made:

1. Effective immediately, all health care providers should postpone administration of the DTP vaccine doses given at 18 months and 4-6 years of age (fourth and fifth doses) until greater supplies are available.
2. When adequate DTP vaccine becomes available, steps should be taken to recall all children under 7 years of age who miss these doses for remedial immunization.

If these recommendations are followed by all providers of DTP vaccine throughout this temporary vaccine shortage, immunity in infants will be maintained at the best possible levels. Public health care providers and professional organizations throughout the United States have been notified and are being urged to follow these recommendations.

---

* Diphtheria and Tetanus Toxoids and Pertussis Vaccine, Adsorbed.

References

1. ACIP. Diphtheria, tetanus, and pertussis guidelines for vaccine prophylaxis and other preventive measures. MMWR 1981;30:392-96,401-7;1981;420.
2. CDC. Pertussis -- United States, 1982 and 1983. MMWR 1984;33:573-5.
3. Brown GC, Volk VK, Gottshall RY, Kendrick PL, Anderson HD. Responses of infants to DTP-P vaccine used in nine injection schedules. Public Health Rep 1964;79:585-602.
4. Orenstein WA, Weisfeld JS, Halsey NA. Diphtheria and tetanus toxoids and pertussis vaccine, combined. In: Recent advances in immunization: a bibliographic review. Washington, D.C.: Pan American Health Organization, 1983:30-51. (Scientific publication no. 451).

DELAYED REPORTS

CORRECTION: Delete October brucellosis case reported from Lake Co. It was not a case.

OTHER DISEASES Campylobacter: Richland, 1i Missoula, 1. Guillain-Barre Syndrome: Yellowstone, 1. Scarlet fever: Missoula, 1.

| NOVEMBER 1984 | DISTRICT 1 | | | | DISTRICT 2 | | | | DISTRICT 3 | | | | | | | | DISTRICT 4 | DISTRICT 5 | | | | | | | | DISTRICT 6 | | | | | | | | DISTRICT 7 | | | | | | | | DIST. 8 | | | | DIST. 9 | | | | DISTRICT 10 | | | | | | | | DIST. 11 | | | | DISTRICT 12 | | | | | | | | | | | | MONTHLY TOTAL | | TOTAL TO DATE | |
|---|---|---

INFECTION CONTROL IN HEALTH CARE PERSONNEL

Judith Gedrose, RN, MN - State Epidemiologist

Some diseases are of particular concern to health care personnel because transmission can occur from patients or patients can be infected by patient-care personnel. Maintenance of adequate personal hygiene habits and individual responsibility by health care workers is the number one means of lessening such transmission. Immunization of health care personnel is also of great importance in preventing transmission of some diseases, such as: 1) influenza; 2) hepatitis B; 3) rubella; and 4) diphtheria-tetanus.[1]

The Advisory Committee on Immunization Practices (ACIP) strengthened its recommendations regarding influenza vaccination for health care personnel this year. The new recommendations state, "--physicians, nurses, and other personnel who have extensive contact with high-risk patients (e.g. primary-care and certain specialty clinicians and staff of intensive care units) should receive influenza vaccination annually."[2] Planning for next year's influenza vaccine program should begin in the spring months of 1985.

The need for hepatitis B vaccine by health care personnel is less well defined, as the need for vaccination increases with the known prevalence of hepatitis B in a population. Health care workers who have contact with blood are at highest risk while those with no contact to blood are at no greater risk than the general population. "Health care workers have varied risks of exposure to hepatitis B virus (HBV) depending on their jobs. Those workers for whom vaccine is recommended should be vaccinated as soon as possible after beginning work in a high-risk environment, ideally during their training period."[1,2]

The need for rubella immunity evaluation of health care personnel became apparent several years ago when some workers transmitted rubella to pregnant patients. Currently the ACIP recommends, "Medical personnel, both male and female (volunteers, trainees, nurses, physicians, etc.), who might transmit rubella to pregnant patients or other personnel, should be immune to rubella. Consideration should be given to making rubella immunity a condition for employment."[2]

Health care personnel should be encouraged to follow the ACIP recommendations for Adult Immunization.[3] Those who have completed a primary series of tetanus-diphtheria vaccine should receive a booster every 10 years.

Measles vaccine should be considered for all health personnel born in 1957 or later. For those not able to document vaccination or disease, measles vaccine is recommended.

Health care workers having close contact with patients excreting wild polio viruses should have completed a primary series of poliovirus vaccine. "For personnel who do not have proof of having completed a primary series, completion is recommended with inactivated poliovirus vaccine (IPV)."[3]

The Adult Immunization recommendations from ACIP are a long-needed reference. It's use for providing health care for all adults is encouraged.

REFERENCES:
1. Williams, Walter. CDC Guideline for Infection Control in Hospital Personnel. Infection Control, July/August 1983, pp326-346.
2. Recommendations of the Public Health Service Advisory Committee on Immunization Practices, 1984.
3. Adult Immunization: Recommendations of the Immunization Practices Committee. Supplement. Morbidity and Mortality Weekly Report, September 28, 1984.

MONTANA MORBIDITY REPORT

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DECEMBER 1984		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels			2												
	Phillips															
	Roosevelt										1					10
	Sheridan															
	Valley										1					
DISTRICT 2	Dawson										1					2
	Garfield															
	McCone															
	Prairie															
	Richland															1
	Wibaux															
DISTRICT 3	Carter															
	Custer															1
	Fallon															
	Powder River										1					
	Rosebud												1		2	8
	Treasure															
DIST. 4	Blaine													1		
	Hill			2												3
	Liberty															
DISTRICT 5	Cascade			2												7
	Chouteau															
	Glacier															13
	Pondera															
	Teton										1					
	Toole															
DISTRICT 6	Fergus															
	Golden Valley															
	Judith Basin															
	Musselshell															
	Petroleum															
	Wheatland															
DISTRICT 7	Big Horn															3
	Carbon															
	Stillwater															3
	Sweet Grass					1										
	Yellowstone			1	1	1			1					1		20
DIST. 8	Broadwater															1
	Jefferson															2
	Lewis & Clark			1												1
DIST. 9	Gallatin															6
	Meagher															
	Park															1
DISTRICT 10	Flathead												1			1
	Lake				1											3
	Lincoln															1
	Sanders			1											1	1
DIST. 11	Mineral															
	Missoula									1			1			11
	Ravalli				1										1	1
DISTRICT 12	Beaverhead															
	Deer Lodge															
	Granite	1														1
	Madison															
	Powell															
	Silver Bow															
MONTHLY TOTAL	19 84	1	0	9	3	2	0	0	1	1	5	0	3	2	4	101
	19 83	0	0	19	2	1	1	0	0	0	7	1	3	2	8	132
	19 82	0	0	5	0	0	0	0	2	0	12	1	4	0	3	112
TOTAL TO DATE	19 84	27	0	138	155	27	0	2	11	20	125	0	62	15	32	1035
	19 83	8	2	242	27	20	5	1	9	2	115	7	162	19	50	1122
	19 82	4	0	108	27	7	0	10	9	1	94	4	110	39	44	1351

DELAYED REPORTS: Toxic shock: Silver Bow, 1; onset 11-25-84.

OTHER DISEASES: Bacterial meningitis: Madison, 1; Missoula, 1; Hepatitis, Non-A, Non-B: Lewis & Clark, 1; Hepatitis, unspecified: Yellowstone 1; Candida parapsilosis: Park, 1; Ascaris lumbricoides (adult): Roosevelt,1; Aspergillus fumigatus: Custer, 1; Roosevelt, 1. Syphilis, primary: Yellowstone, 1.

1984 Annual Summary of Communicable Diseases

Amebiasis - 2
Missoula, 2

Botulism, infant - 1
Missoula, 1

Brucellosis - 2
Gallatin, 1
Ravalli, 1

Campylobacter - 52
Beaverhead, 1
Big Horn, 2
Cascade, 2
Gallatin, 4
Glacier, 1
Hill, 1
Jefferson, 1
Lake, 4
Lewis & Clark, 2
Missoula, 11
Pondera, 1
Ravalli, 12
Richland, 2
Silver Bow, 1
Valley, 4
Yellowstone, 3

Chickenpox - 397
Beaverhead, 1
Big Horn, 5
Cascade, 72
Flathead, 1
Gallatin, 13
Glacier, 34
Hill, 16
Lake, 119
Missoula, 88
Park, 1
Phillips, 12
Powell, 1
Ravalli, 12
Silver Bow, 1
Sweet Grass, 10
Treasure, 1
Yellowstone, 10

Colorado Tick Fever - 18
Beaverhead, 2
Cascade, 1
Deer Lodge, 1
Gallatin, 1
Lake, 1
Lewis & Clark, 1
Lincoln, 1
Madison, 1
Missoula, 3
Park, 4
Ravalli, 1
Yellowstone, 1

Cytomegalo Virus - 5
Beaverhead, 1
Cascade, 1
Lewis & Clark, 1
Yellowstone, 2

Diphtheria - 0

Guillain-Barre Syn. - 3
Gallatin, 1
Yellowstone, 2

Hepatitis, Non-A,Non-B - 8
Big Horn, 1
Cascade, 1
Flathead, 1
Lake, 1
Lewis & Clark, 1
Roosevelt, 1
Yellowstone, 2

Hepatitis, unspecified - 3
Cascade, 1
Lake, 1
Yellowstone, 1

Histoplasmosis - 1
Yellowstone, 1

Legionellosis - 7
Cascade, 3
Gallatin, 1
Park, 1
Pondera, 1
Yellowstone, 1

Malaria - 2
Missoula, 1
Silver Bow, 1

Meningitis, Bacterial - 17
Cascade, 1
Fallon, 1
Hill, 1
Liberty, 1
Madison, 1
Missoula, 5
Ravalli, 2
Sheridan, 1
Silver Bow, 2
Teton, 1
Yellowstone, 1

Mononucleosis - 74
Cascade, 7
Custer, 1
Deer Lodge, 1
Gallatin, 32
Lake, 14
Missoula, 4
Phillip, 2
Ravalli, 3
Rosebud, 4
Yellowstone, 6

Mycoplasma - 21
Custer, 1
Gallatin, 1
Flathead, 1
Lake, 10
Madison, 1
Missoula, 1
Park, 1
Pondera, 1
Silver Bow, 2

Rocky Mtn. Spotted Fever - 7
Lake, 1
Missoula, 2
Ravalli, 2
Rosebud, 1
Yellowstone, 1

Strep throat & scarlet fever
2,768 cases reported statewide

Syphilis, civilian - 10
early latent - 5 (< 1 year)
Cascade, 2
Gallatin, 1
Mineral, 1
Powell, 1
late latent - 1
Lincoln, 1
primary - 3
Cascade, 1
Dawson, 1
Yellowstone, 1
secondary - 1
Yellowstone, 1

Chancroid - 1
Beaverhead, 1

Lymphogranuloma venereum - 1
Gallatin, 1

Syphilis, military - 0

Toxic shock syndrome - 3
Lewis & Clark, 1
Missoula, 1
Silver Bow, 1

Tularemia - 2
Big Horn, 1
Gallatin, 1

Typhoid fever - 1
Phillips, 1

Gonorrhea, military - 14

NOTE: Totals are from those counties reporting.

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1984 Annual Communicable Disease Summary		ASEPTIC MENINGITIS	ENCEPHALITIS	GIARDIA	HEPATITIS A	HEPATITIS B	MEASLES	MENING. DISEASE	MUMPS	PERTUSSIS	RABIES, ANIMALS	RUBELLA	SALMONELLA	SHIGELLA	TUBERCULOSIS	GONORRHEA
DISTRICT 1	Daniels			2							2					-
	Phillips					1										5
	Roosevelt			2	6	1		1			1		1		2	136
	Sheridan			1							7		1			1
	Valley										12			1		4
DISTRICT 2	Dawson										5		1			15
	Garfield										3					1
	McCone										13					-
	Prairie										1					-
	Richland								1		6					12
	Wibaux															1
DISTRICT 3	Carter										7					-
	Custer										3		1		1	11
	Fallon										12					1
	Powder River										15					1
	Rosebud	4		2							7		3		3	52
	Treasure															-
DIST. 4	Blaine			3	1								1	4	1	19
	Hill	2		15					1	1			1	1	1	43
	Liberty			3				1								-
DISTRICT 5	Cascade	1		8	3	3				1	1		7		1	59
	Chouteau										1					4
	Glacier	2		6	1				1		2		3	2	9	95
	Pondera	1				1										5
	Teton			1							1					1
	Toole										2					-
DISTRICT 6	Fergus										6					7
	Golden Valley															-
	Judith Basin										2					2
	Musselshell										5					2
	Petroleum										1					-
	Wheatland															-
DISTRICT 7	Big Horn			2					1		2			2		45
	Carbon			1	1						1					-
	Stillwater			1					1							5
	Sweet Grass			1		1										-
	Yellowstone	2		12	14	5			4	1			5	2	3	217
DIST. 8	Broadwater															4
	Jefferson										2					8
	Lewis & Clark	1		22	1	1					2		5		3	56
DIST. 9	Gallatin	3		14					1				3	1		34
	Meagher															1
	Park			3		1							1		1	4
DISTRICT 10	Flathead	3		7	1	3					1		7		1	48
	Lake	2		9	61	1			1				1		1	15
	Lincoln	2				1							1			5
	Sanders			3	25										1	3
DIST. 11	Mineral												1			5
	Missoula			23	40	4				1			15		1	76
	Ravalli			2	5	2					2		1	1	1	3
DISTRICT 12	Beaverhead	1								14					1	4
	Deer Lodge			1									2			7
	Granite	1														1
	Madison			1												-
	Powell			2	1	1				2						2
	Silver Bow			1											1	6
COUNTY UNKNOWN		1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
TOTAL 1984		26	-	148	160	26	-	2	11	20	125	-	61	15	32	1040*
TOTAL 1983		8	2	261	33	21	4	5	9	2	123	4	164	19	47	1244‡

Gonorrhea totals:

* 1984 total includes 14 military.
‡ 1983 total includes 27 military.

NOTE: Totals are from those counties reporting.